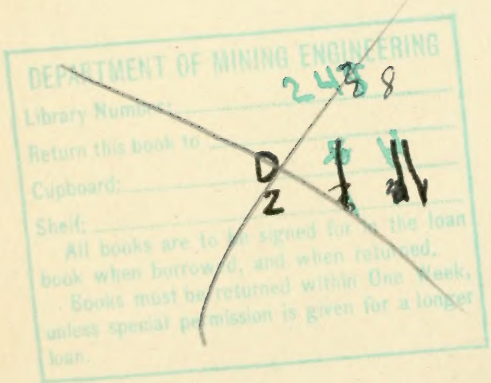
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THE

MINING WORLD INDEX

of Current Literature

VOL. VII FIRST HALF YEAR 1915

By GEO. E. SISLEY
Associate Editor
Mining and Engineering World

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Preface

Volume VII of The Mining World Index of Current Literature, as in previous volumes, contains the world's literature on mining, metallurgy and kindred subjects. There will be found in classified form the title of all articles appearing in periodical magazines published in America, Europe, Africa and Australia on mining, engineering, metallurgy, mining geology, mineralogy, etc.; also the valuable publications of the world's industries, institutes and affiliated engineering and technical societies, as well as publications of the Federal and State Geological Surveys and Mining Bureaus at home and abroad—not to mention new books. All these are indexed by a simple plan, easily understood. By the system of cross-indexing adopted one can readily find what is wanted on any mining or affiliated subject. In nearly all entries it will be noted that a brief digest of the article is given, sufficient to give a general idea of its contents. Where more than one author occurs the first named appears in alphabetical arrangement; the other or others will be found by referring to the authors' index.

In the search for some particular article covering a certain subject it should be remembered that when reference of any importance is made in that article to more than one subject, the article will be indexed under the different subjects. This reference may be but a few lines in length, but it may contain the information sought.

Contents

GEOLOGY AND MINERALOGY

CHAPTER I.

Geology 1
Ore Genesis..... 12
Mineralogy and Petrography..... 13

METALS AND METAL ORES

CHAPTER II.

Gold 16
Silver 25
Platinum 29

CHAPTER III.

Copper 30

CHAPTER IV.

Lead 39
Zinc 42
Cadmium 45

CHAPTER V.

Iron and Steel..... 46

CHAPTER VI.

Alloys 56
Antimony 56
Bismuth 57
Chromium 57
Manganese 57
Molybdenum 58
Titanium 58
Tungsten 59
Uranium 59
Vanadium 59

CHAPTER VII.

Tin 61
Nickel 63
Cobalt 63
Alumium 64

CHAPTER VIII.

Mercury 65
Osmium 65
Radium and Radioactives..... 65
Thorium 66
Miscellaneous Ores and Metals (Unclassified) 66

NON-METALS

CHAPTER IX.

Coal 68
Coke 82
Peat 84
Miscellaneous Fuels 84

CHAPTER X.

Petroleum 86
Natural Gas 90
Asphalts 92
Bitumens 92

CHAPTER XI.

Brick and Tile..... 93
Cement 93
Clays and Ceramics..... 94
Lime 94
Concrete 95
Sand and Gravel..... 95
Stone 96

CHAPTER XII.

Acids 97
Alkalis 97
Arsenic 97
Asbestos 97
Barytes 98
Feldspar 98
Fertilizers 98
Fuller's Earth 99
Gems 99
Graphite 100
Gypsum 100
Magnesite 100
Mica 100
Nitrates 101
Nitrogen 101
Pigments 101
Potash 101
Pyrites 102
Quartz 102
Talc and Soapstone..... 103
Salines 103
Sulphur 103
Miscellaneous Non-Metals (Unclassified). 104

MINES AND MINING

CHAPTER XIII.

Prospecting 106
Ore Reserves 108
Drilling and Boring..... 108

Explosives and Blasting....111
Shafts and Shaft Sinking....112
Lighting....113
Telephones and Signalling....114
Pumps and Pumping....114
Tunnels and Tunneling....115
Mine Gas....115
Mine Waters....116
Mine Temperatures....116
Ventilation....116
Supports: Props, Pillars, Timbers, Stowing, Etc....117
Hoists and Hoisting....119
Dredging....120
Power Shovels and Excavators....121
Hydraulic Mining....122
Mining Costs....123
Mining Miscellany....125

CHAPTER XIV.

Transport and Haulage....130
Storage....135
Accidents....136
Safety....137
Rescue and First-Aid....139
Sanitation....139
Labor and Management....140
Sociological....142

CHAPTER XV.

Production....144

MILLS AND MILLING

CHAPTER XVI.

Sampling....151
Crushing, Grinding, Etc....151
Concentrating: Sorting, Sizing, Washing....154
Amalgamation....157
Cyaniding....158
Briquetting....160
Chlorination....160
Milling and Smelting Costs....160
Mill Miscellany....161

CHEMISTRY AND ASSAYING

CHAPTER XVII.

Chemistry....164
Assaying and Analysis....166

METALLURGY

CHAPTER XVIII.

Electrochemistry....169
Electrometallurgy....169
Thermic Metallurgy....171
Hydrometallurgy....178
Metallurgy General....180

POWER AND MACHINERY

CHAPTER XIX.

Electricity....182
Combustion Engines....188
Steam and Steam Engines....188
Compressed Air....189
Gas Producers; Producer Gas....190
Miscellaneous....190

MISCELLANEOUS

CHAPTER XX.

Miscellaneous Costs....193
Testing....194
Waste: Slag, Tailings, Fumes, Etc....196
Metallography....198
Law, Legislation, Taxation....199
Conservation....201
Government Ownership....201
Historical....202
Schools and Societies....203
Educational....203
Financial....204
Miscellaneous General....204

Publications Indexed

Including Periodicals, Books and Transactions, Bulletins, Etc., of Schools, Societies and Government Bureaus.

A

Acetylene Journal.
African World.
Alaska & Northwest Mining Journal.
Allgemeine österreichische Chemiker und Techniker-Zeitung.
Allianza, Mexico.
American Ceramic Society.
American Chemical Society.
American Electrochemical Society.
American Fertilizer.
American Foundrymen's Association.
American Industries.
American Institute of Chemical Engineers.
American Institute of Electrical Engineers.
American Institute of Mining Engineers.
American Iron & Steel Institute.
American Journal of Science.
American Metal Society.
American Metallurgical Society.
American Mining Congress.
American Museum of Safety.
American Peat Society.
American Railway Engineering Association.
American Society of Civil Engineers.
American Society of Engineering Contractors.
American Society of Mechanical Engineers.
American Society of Naval Engineers.
American Wood Preservers' Association.
Anales de la Sociedad Cientifica Argentina.
Annales de Mines, France.
Annales des Mines de Belgique, Belgium.
American Portland Cement Manufacturers.
Association of Engineering Societies.
Association of Mining Electrical Engineers, England.
Association of Railway Electrical Engineers.
Australian Coal & Iron Trade Review, Sydney.
Australasian Institute of Mining Engineers.
Australian Mining Standard, Melbourne.

B

Berg und Hüttenmännische Rundschau, Kattowitz, Germany.
Berg & Hüttenm, Jahrb. Leoben-Pribram.
Bergbau, Germany.
Bergwerks-Zeitung, Germany.
Bergwerkschaftliche Mitteilungen, Germany.
Bergwirtschaftliche, Mitteilungen.
Birmingham Metallurgical Society, England.
Bitumen, Germany.
Black Diamond.
Braunkohle.
Brick & Clay Record.
British Columbia Bureau of Mines.
British Columbia Mining Exchange & Engineering News, B. C.
British Columbia Mining & Engineering Record, B. C.
British Guiana Institute of Mines and Forests.
British Iron & Steel Institute.
Bulletin of the Pan-American Union.

C

Cairo Scientific Society.
California Miners' Association.
California State Mining Bureau.
Canada Department of Mines.
Canada Geological Survey.
Canadian Engineer.
Canadian Mining Institute.
Canadian Mining Journal.
Cassier's Magazine.
Cement.
Cement Age.
Centralblatt der Hütten & Walzwerke. Berlin, Germany.
Chemical Engineer.
Chemical, Metallurgical & Mining Society of South Africa.
Chemiker-Zeitung, Germany.
Chemiker & Techniker-Zeitung, Austria
Chemist-Analyst.
Cleveland Engineering Society.
Coal Age.
Coal Mining Institute of America.
Coal Trade Bulletin.
Coal & Coke Operator.
Colliery Engineer.
Colliery Guardian, London.
Colorado School of Mines.
Colorado Scientific Society.
Colorado State Bureau of Mines.
Colorado University.
Columbia School of Mines Quarterly.
Compressed Air Magazine.
Connecticut State Geological & Natural History Survey.
Cornwall Mining Association and Institute, England.
Cuerpo de Ingenieros de Minas del Peru, Peru.

D

Der Bergbau, Germany.
Der Erzbergbau, Germany.
Der Kohleninteressent, Bohemia.
Deutsche Bergwerks Zeitung, Germany.
Deutsche Technik, Germany.
Die Fördertechnik, Germany.
Domestic Engineering.

E

Economic Geology.
Edinburgh Geological Society, Scotland.
Eisen Zeitung, Germany.
El Economista Mexicana, Mexico.
El Petrolero Mexicana, Mexico.
Electrical Engineer, London.
Electrical Review, London.
Electrical Review & Western Electrician.
Electrician, London.
Electrotechnik & Maschinenbau, Austria.
Elektroschemische Zeitschrift, Germany.
Engineering Association of New South Wales, Australia.
Engineering, London.
Engineering Magazine.
Engineering Review, London.
Engineering & Contracting.
Engineering & Mining Journal.
Engineers' Club.
Engineers' Society of Eastern Pennsylvania.
Engineers' Society of Western Pennsylvania.
English Ceramic Society, England.
Excavating Engineer.

F

Faraday Society, London.
Federated Malay States Mines Report.
Fer et Acier, France.

Ferrum, Aachen, Germany.
Florida State Geological Survey.
Fördertechnik, Germany.
Franklin Institute.
Fuel Oil Journal.

G

General Electric Review.
Geological Society of America.
Geological Society of South Africa.
Geological Society of Tokyo, Japan.
Geological Society of Washington, D. C.
Georgia Geological Survey.
Giesserei Zeitung, Germany.
Glückauf, Germany.
Great Britain Geological Survey.

I

Idaho State Inspector of Mines.
Ideal Power.
Illinois State Geological Survey.
Illuminating Engineering Society.
Imperial Institute.
India Geological Survey.
India Mining & Geological Institute.
Indian & Eastern Engineer.
Indiana Department of Geology & Natural Resources.
Indust. Chimica, Minerar. e Metallurg., Italy.
Industrial Advocate, Nova Scotia.
Industrial Engineering & Engineering Digest.
Informaciones y Memorias, Boletin de la Sociedad de Ingenieros, Peru.
Informes y Memorias del Instituto Mexicana, de Mines of Metalurgia, Mexico.
Ingeneria, Spain.
Institute of Engineers & Ship Builders, Scotland.
Institute of Marine Engineers, England.
Institution of Mining Engineers, London.
Institution of Mining & Metallurgy, London.
International Association for Testing Materials.
International Congress for Radiology & Electrology.
International Railway Fuel Association.
International Institute of Technical Bibliography.
Iowa Engineer.
Iowa Geological Survey.
Iowa State College Engineering Experiment Station.
Iowa University.
Iron Age.
Iron Trade Review.
Iron & Coal Trades Review, London.
Iron & Steel Institute, London.

J

Jern Kontorets Annaler, Sweden.
Journal du Four Electrique et de l'Electrolyse, France.
Journal du Petrole, France.
Journal of Electricity, Power & Gas.
Journal of Geology.
Journal of Industrial & Engineering Chemistry.

K

Kali, Erz & Kohle, Germany.
Kali, Halle, Germany.
Kansas University Geological Survey.
Kentucky Geological Survey.
Kentucky Mining Institute.
Kentucky University.
Kohle & Erz, Germany.
Kohleninteressent, Germany.

L

La Metallurgia Italiana, Italy.
La Metallurgie du Nord, France.
Lackawanna Chemical Society.
Lake Superior Mining Institute.
L'Echo des Mines de la Metallurgie, Paris, France.
Le Pétrole, France.
Le Phosphate, France.
Levant Trade Review, Turkey.
Liverpool Geological Association, England.
Los Angeles Chamber of Mines & Oil.
Louisiana Geological Survey.
L'Opinion Financiere, France.

M

Madrid Cientifico, Spain.
Malayan Tin & Rubber Journal, F. M. S.
Manchester Association of Engineers, England.
Manchester Mining & Geological Society, England.
Mechanical World, England.
Metall und Erz, Halle, Germany.
Metallurgia Italiana, Italy.
Metallurgical & Chemical Engineering.
Metallurgie & Construction Mechanique, France.
Metallurgie, Germany.
Mexican Institute of Mining & Metallurgy, Mexico.
Mexican Mining Journal.
Michigan Geological Survey.
Midland Institute of Mining, Civil & Mechanical Engineers, England.
Mineral Resources of Oregon.
Mining Engineering, London.
Mining Engineering & Electrical Record, B. C.
Mining Institute of Scotland.
Mining Journal, London.
Mining Magazine, London.
Mining Science.
Mining Society of Nova Scotia.
Mining World & Engineering Record, London.
Mining & Engineering Review, Australia.
Mining & Engineering World.
Mining & Geological Institute of India.
Mining & Metallurgical Society of America.
Mining & Scientific Press.
Minnesota Geological & Natural History Survey.
Mississippi Geological Survey.
Missouri Bureau of Geology and Mines.
Missouri Geological Survey.
Missouri School of Mines.
Mois Minier et Metallurgique, France.
Montan-Zeitung für Oesterreich-Ungarn und die Balkanländer, Austria.
Montana Inspector of Mines' Reports.
Montanistische Rundschau, Germany.

N

National Academy of Sciences.
National Association of Colliery Managers, London.
National Association of Stationary Engineers.
National Geographic Magazine.
National Lime Manufacturers' Association.
Natural Gas Journal.
Nevada University.
New Jersey Geological Survey.
New South Wales Engineering Association.
New Zealand Geological Survey.
New Zealand Institute.
North Carolina Geological Survey.
North of England Institute of Mining & Mechanical Engineers.
North Staffordshire Institute of Mining & Mechanical Engineers.
Northwest Mining & Metallurgy.
Nova Scotia Mining Society.

O

Oesterreichische Zeischrift für Berg- und Huttenwesen, Vienna.

Oil Age.
Oil & Gas Journal.
Oklahoma Geological Survey.
Ontario Bureau of Mines.
Oregon University.

P

Pahasapa Quarterly.
Pan American Union.
Pennsylvania Mines Department.
Pennsylvania Topographic & Geologic Survey.
Peru Today, Lima.
Pétrole, France.
Petroleum, Germany.
Petroleum World, London.
Pfalz-Saarbrücker Bezirksvereins Deutscher Ingenieure, Germany.
Philadelphia Engineers' Club.
Philippine Journal of Science, Manila.
Pittsburgh University.
Popular Mechanics.
Power.
Practical Electricity & Engineering.
Practical Engineer.

Q

Quebec Bureau of Mines.
Quebec Department of Colonization, Mines & Fisheries.
Queensland Geological Survey.
Queensland Government Mining Journal.

R

Radium.
Rassegna Mineraria Metallurgica e Chimica, Italy.
Resoconti delle Riunioni Association, Italy.
Resources of Tennessee.
Revista Minera e Industria de Linares, Spain.
Revista Minera Metallurgica y de Ingenieria, Spain.
Revue d'Electrochimie et d'Electrometallurgie, France.
Revue Noire, France.
Revue Practique des Industries Metallurgiques, France.
Revue Industrielle du Centre, France.
Revue de Metallurgie, France.
Revue des Matériaux de Construction, France.
Rhodesia (Southern) Mines Department.
Rhodesian Chamber of Mines, Bulawayo.
Rigasche Industrie Zeitung, Russia.
Rock Products.
Royal Geological Society of Cornwall, England.
Royal Society of Arts Journal, London.

S

Salt Lake Mining Review.
Science & Art of Mining, England.
Sibley Journal of Engineering.
Slate Trade Gazette, England.
Smithsonian Institution.
Société Amicale des Anciens Élèves de l'École des Maitres-Mineurs de Douai, France.
Société Chimique de Belgique, Belgium.
Société des Ingénieurs Civils de France.
Society of Arts, London.
Society of the Chemical Industry, London.
Society of the Chemical Industry.
South Africa Engineering, London.
South Africa, South Africa.
South African Association of Engineers.
South African Institute of Electrical Engineers.
South African Mining Journal.
South Dakota Engineering Society.
South Dakota Inspector of Mines.
South Dakota School of Mines.
South Staffordshire & Warwickshire Institute of Mining Engineers, England.
South Wales Institute of Engineers, Wales.
Staffordshire Iron & Steel Institute, England.
Stahl und Eisen, Germany.
Stone Trade Journal.
Südwestdeutsche Industrie Zeitung, Prussia.
Sydney University Engineering Society.

T

Technische Blätter, Essen-Ruhr, Germany.
Technische Centralanzeiger, Germany.
Tech. du Nord de la France.
Tennessee State Geological Survey.
Tonindustrie Zeitung, Berlin, Germany.
Transvaal Chamber of Mines, Johannesburg.

U

United States Bureau of Mines.
United States Bureau of Standards.
United States Consular Reports.
United States Department of Commerce and Labor.
United States Geological Survey.
University of Illinois.
University of Texas.
University of Texas Mineral Survey.

V

Vancouver, B. C., Chamber of Mines.
Victoria Chamber of Mines, Australia.
Virginia Geological Survey.

W

Washington Academy of Sciences.
West Australian Mining, Building & Engineering Journal, Kalgoorlie.
West of Scotland Iron & Steel Institute.
West Virginia Geological Survey.
West Virginia Mining Association.
Western Australia Department of Mines.
Western Australia Geological Survey.
Western Australia Institution of Engineers.
Western Chemist & Metallurgist.
Western Engineering.
Western Society of Engineers.
Wisconsin Engineer.
Wisconsin Geological & Natural History Survey.
Wisconsin University.
Wood Preservers' Association.
Wyoming Geological Survey.

Y

Yale Scientific Monthly.

Z

Zeitschrift der Oberschlesischen Berg & Hüttenmannischen Verein, Germany.
Zeitschrift des Internationalen Vereines der Bohringenieure & Bohrtechniker, Austria.
Zeitschrift des Zentral Verbandes der Bergbau Betriebsleiter, Bohemia.
Zeitschrift für Bergrecht, Germany.
Zeitschrift für das gesamte Schiess & Sprengstoffwesen, Germany.
Zeitschrift für des Berg, Hütten & Salinenwesen in preussischen Staate, Germany.
Zeitschrift für Elektrochemie, Germany.
Zeitschrift für praktische Geologie, Germany.
Zeitschrift für Schiess & Sprengstoffw., Germany.
Zentral-Blatt Kunstdünger Industrie, Germany.

Explanations and Abbreviations

The entries show:

(1) The author of the article.

(2) A dash if the name is not apparent.

(3) The title, in italics, of the article or book. Titles in foreign languages are ordinarily followed by a translation or explanation in English.

(4) When the original title is insufficient a brief amplification is added. This addition is in brackets.

(5) The journal in which the article appeared; also the date of issue, and the page on which the article begins.

(6) Approximate number of words. Illustrated articles are indicated by an asterisk (*).

(7) The price. Articles mentioned will be supplied to subscribers of Mining and Engineering World and others at the prices quoted. Two-cent postage stamps will be accepted on orders less than $1. Subscribers will be allowed a discount of 5 cts. if the price of the article exceeds 50 cts.

NOTE.—When there is more than one author to an article, only the first named appears in alphabetical arrangement, the others appearing, however, on the page or pages designated in author's index.

Subjoined is a list of the commoner abbreviations found in this work. They are used chiefly in the names of periodicals, and of associations. The abbreviations will be found easily intelligible at sight, and are what they purport to be—self-explanatory abbreviations, not symbols.

Abst.—Abstract.
Acad.—Academy; Académie; Accademia.
Adv.—Advance.
Afr.—Africa; African.
Akad.—Akademie.
Allgm.—Allgemeine.
Amer.—American.
A. I. M. E.—American Institute Mg. Eng.
Archts.—Architects.
Assn.—Association.
Ber.—Berichte.
Bol.—Boletin; Boletim; Bollettino.
Bull.—Bulletin.
Bur.—Bureau.
Centralbl.—Centralblatt.
C-R.—Compte-Rendu; Resoconti.
Chap.—Chapter.
Chem.—Chemical.
Chemy.—Chemistry.
Coll.—College.
Colly.—Colliery.
Cong.—Congress.
Conv.—Convention.
d.—des (French and German).
Dept.—Department.
Deu.—Deutsche, etc.
Econ.—Economic.
Ed.—Editorial.
Elect.—Electrical.
Engg.—Engineering.
Engr.—Engineer.
Engrs.—Engineers.
Ext.—Extract.
f.—for; für.
Gaz.—Gazette.
Geol.—Geology.
Geolog.—Geological.
Ges.—Gesellschaft.
Govt.—Government.
Hüttenm.—Hüttenmännische.
Ind.—Industrial; Industriel; Industrielle.
Ingr.—Ingenieure, Ingenieros.
Inst.—Institute; Institut; Instituto.
Instn.—Institution.
Intl.—International.
Jahresber.—Jahresbericht.
Jahrb.—Jahrbuch.
Jnl.—Journal.
Mag.—Magazine.
Mech.—Mechanical.
Met.—Metallurgy.
Metl.—Metallurgical.
Mex.—Mexican.
Mfrs.—Manufacturers.
Mg.—Mining.
Min.—Mineral.
Mittlngn.—Mitteilungen.
Oestr.—Oesterreichische; Oesterreich.
Proc.—Proceedings.
Quart.—Quarterly.
Rec.—Record.
Rept.—Report.
Res.—Resources.
Rev.—Review; Revue; Revista.
Sci.—Science; Sciences.
Scient.—Scientific.
Soc.—Society; Société; Società.
Suppl.—Supplement; Supplementary.
Surv.—Survey.
Tech.—Technology.
Trans.—Transactions.
Ver.—Verein.
Verb.—Verband.
Verh.—Verhandlungen.
Univ.—University.
Zentralbl.—Zentralblatt.
Ztg.—Zeitung.
Zts.—Zeitschrift.

PART I.

GEOLOGY AND MINERALOGY.

CHAPTER I.

MINING GEOLOGY, ORE GENESIS AND MINERALOGY.

GEOLOGY.

Allan, F. L.; Faulkner, H. W.—*The San Rafael Vein at El Oro, Mexico.* [Shows how irregularly the ore occurs in the vein matrix].—Mg. Mag. May 1915; p 281; pp 4½*; 50c.

Annes, E. C.—*The Geology and Economic Minerals of Yukon Territory.* [Is a concise review of the gold, copper and coal deposits of the territory].—Mine, Quarry & Derrick April 14 1915; p 176; pp 5*; 35c.

Anrep, A. V.—*Investigation of the Peat Bogs and Peat Industry of Canada,* 1911-12. [Treats on the origin, chemistry of, economic importance of and gives statistical tables of production, etc.].—Canada Dept. Mines, Mines Branch Bull. 9; pp 47; plates 19.

Appleby, W. R.; Newton, Edmund.—*Preliminary Concentration Tests on Cuyuna Ores.* [Takes up the mining situation and then experiments on the concentration of the low-grade silicate iron ores].—Minn. School Mines Experiment Station Bull 3; pp 66*.

Atwood, Wallace W.—*Eocene Glacial Deposits in Southwestern Colorado.* [Gives a description of the deposits and their location].—U. S. G. S. Prof. Paper 95-B; pp 26*.

Ball, L. C.—*Gray's Luck Gold Mine, at the One-Mile, Nanango.* [Dwells on the history, samplings, working and geology of the property].—Queensland Mg. Jnl. April 15 1915; p 167; pp 3*; 35c.

Ball, Sydney H.; Shaler, Millard K.—*Economic Geology of the Belgian Congo.*—S. Afr. Mg. Jnl. Jan. 16 1915; p 369; 1 p; Feb. 6; p 438; 1 p; May 8 1915; p 242; pp 1; $1.40.

Ball, Sydney H.; Shaler, Millard K.—*Generalizations Concerning Economic Geology of the Belgian Congo.* [Excerpt from Econ. Geol.].—E. & M. J. March 6 1915; p 441; 600 w; 25c.

Ball, S. H.; Shaler, M. K.—*Geology of the Katanga Copper Deposits.* [Excerpts from "Economic Geology of the Belgian Congo, Central Africa," Econ. Geol. Oct. 1914].—E. & M. J. April 3 1915; p 695; pp 2½*; 25c.

Bancroft, G. J.—*Advancement of Mining in Colorado.* [Reviews the progress during May 1915].—M. & S. P. June 12 1915; p 910; pp 1*; 20c.

Barlow, A. W.—*Corundum Mining in Ontario.* [An extract from Memoir 57 Canadian Geol. Surv.].—Canadian Mg. Jnl. June 15 1915; p 379; pp 3½*; 35c.

Barnett, V. H.—*The Douglas Oil and Gas Field, Converse County, Wyoming.* [Treats of the geology and occurrence of oil and natural gas in this area].—Bull. 541 U. S. Geol. Surv.; p 49; 40 pp*.

Barnett, V. H.—*The Moorcroft Oil Field and the Big Muddy Dome, Wyoming.* [Speaks of the acutal operations in Moorcroft and the possibilities in Big Muddy Dome].—U. S. G. S. Bull. 581-C; pp 117*.

Barr, James A.—*Tennessee Phosphate Practice.* [Reviews the mining of, geology, prospecting, costs and methods of manufacture; paper read before the A. I. M. E.].—Chem. Eng. June 1915; p 230; pp 5½; 35c.

Barrell, Joseph.—*The Strength of the Earth's Crust.*—Jnl. Geol. Jan.-Feb. 1915; p 27; 18 pp*; 35c.

Bastin, Edson S.—*Geologic Atlas of the United States: Eastport Folio, Maine.* [Describes the geologic and economic mineral features of the area, with maps and illustrations].—Eastport Folio No. 192, U. S. Geol. Surv.; pp 15*.

Bastin, Edson S.—*The Graphite Production in 1913.*—U. S. G. S. Min. Res. U. S. 1913, II-14; pp 71.

Bauer, Julius.—*Russlands Steinkohlenvorkommen und deren Ausbeutung.* [The properties of hard coal and the formation in Russia].—Kohleninteressent April

1 1915; p 49; pp 1½; April 15 1915; p 57; pp 1½; 70c.

Bayley, W. S.; Salisbury, R. D.; Kümmel, H. B.—*Geologic Atlas of the United States: Raritan Folio, New Jersey.* [Describes the geologic and economic mineral features of the area covered, with five large maps.]—Raritan Folio No. 191, U. S. Geol. Surv.; pp 33*.

Beekly, A. L.—*Geology and Coal Resources of North Park, Colorado.* [Treats on the stratigraphy and economic coal deposits in detail with a little on gold, silver and copper of the district].—U. S. G. S. Bull. 596; pp 121*.

Blackwelder, E.—*A Fully Exposed Reef of Calcareous Algae in the Middle Cambrian of Teton Mountains, Wyoming.* [Takes up the surface geology of the reef].—American Jnl. Sci. June 1915; p 646; pp 4½*; 60c.

Blackwelder, Eliot. — *Post-Cretaceous History of the Mountains of Central Western Wyoming.*—Jnl. Geol'y May 1915; p 193; pp 25*; 75c.

Blackwelder, Eliot.—*The Geologic History of China and Its Influence Upon the Chinese People.* [Reprinted with author's revision from Pop. Sci. Monthly].—Ann. Rep. Smithsonian Inst., 1913; p 385; 22 pp*.

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PART II.

ORES AND MINERAL PRODUCTS.

METALS AND METAL ORES.

CHAPTER II.

GOLD, SILVER AND PLATINUM.

GOLD

Gold Fields and Mining

Allan, F. L.; Faulkner, H. W.—*The San Rafael Vein at El Oro, Mexico.* [Shows how irregularly the ore occurs in the vein matrix].—Mg. Mag. May 1915; p 281; pp 4½*; 50c.

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Burch, Albert.—*Costs and Profits of the Goldfield Con. Mining Co. in* 1914. [Gives the costs and profits in tabulated form accompanied with a description].—Mg. World April 17 1915; p 730; pp 3; 10c.

Bush, Faris V.—*Mining in the Pinos Altos District of New Mexico.* [Reviews the mining history of the district, but deals mainly with description of gold-mining operations, with brief mention of the occurrence of complex ores carrying lead, zinc, copper, gold and silver].—Mg. World Jan. 23 1915; p 165; 3¼ pp*; 10c.

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Eddy, L. W.—*Flume-Type Elevator Dredges in Alaska.*—E. & M. J. June 26 1915; p 1129; pp 1*; 25c.

Ellis, Hubert I.—*Dawson, Nome and Fairbanks.* [A brief sketch of the rise of the three famous placer camps of Alaska and the Yukon. The character of the gravels is described, together with the influence of various elements upon the prosperity of the industry].—E. & M. J. March 20 1915; p 517; 3¾ pp*; 25c.

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excavating in the winter and sluicing in the summer].—E. & M. J. June 12 1915; p 1023; pp 7*; 25c.

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MacDonald, J. A.—*Yukon Placer Mining Regulations.* [Calls attention to the confusion of these regulations].—E. & M. J. Jan. 16 1915; p 156; 500 w; 25c.

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Percival, F. B.—*Influence of the European War on the Mining Industry of Dutch Guiana.* [Gold mining demoralized and great distress is felt].—E. & M. J. March 6 1915; p 445; 450 w; 25c.

Prichard, W. A.—*Nechi Mines, Ltd., Colombia.* [Reports on the amount of dredgable ground, drill prospecting, dredge equipment, etc.].—E. & M. J. Jan. 30 1915; p 244; 650 w; 25c.

Prichard, W. A.—*Pato Property of the Oroville Dredging Co., Colombia.* [Treats of prospect of additional areas, present high yields, dredge-operating costs, prospecting, drilling factor, geology, equipment, repair shops, climatic and living conditions, etc.].—E. & M. J. Jan. 30 1915; p 231; 3¾ pp*; 25c.

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Prichard, W. A.—*The Pato and Nechi Placer Properties, Colombia.* [Gives results of an extended examination of these properties, with notes on valuation, dredging and dredging costs, etc.].—Mg. Press Feb. 6 1915; p 220; 2½ pp*; 20c.

Purington, C. W.—*Improvements at Lena Goldfields.* [Extracts from report of consulting engineer for the Lena Goldfields, Ltd., to the Lenskoi board in Russia].—E. & M. J. Feb. 13 1915; p 333; 1 p; 25c.

Purington, C. W.—*The Gold Mines of the Lena.* [Treats on the history, geology and mining costs with production of the deposit in Siberia].—Mg. Mag. June 1915; p 341; pp 10*; 50c.

Revett, Ben Stanley.—*Gold Dredging in Colorado.* [From Thirteenth Biennial Report Colorado State Bureau of Mines].—S. L. Mg. Rev. Feb. 28 1915; p 13; 1½ p*; 25c.

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Ruggles, D. M.—*Fairbanks District. Alaska.* [A general review of the placer mining in the district].—Alaska & N. W. Mg. Jnl. April 1915; p 76; pp 2*; 30c.

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description and history of the town and surrounding country].—Mg. Engg. & Elect. Rec. April 15 1915; p 37; pp 5*; May 1 1915; p 52; pp 8½*; 70c.

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Steel, Donald.—*Prospecting Wet Placer Ground by Shaft Sinking.* [Describes a caisson sinking method, giving full details and sketches as well as results of a test].—Mg. Press Jan. 9 1915; p 66; 2½ pp*; 20c.

Taylor, W. P.—*South Africa's Gold Resources and the Empire.* [Gives a general description of the deposits and their possibilities].—S. Afr. Mg. Jnl. May 22 1915; p 277; pp 2*; 35c.

Thompson, A. G. — *Yakataga Beach Placers.* [Describes the country, formation and tells of the concentration of the gold in the sands].—E. & M. J. May 1 1915; p 763; pp 2½*; 25c.

Truschkoff, N. T.—*The Eiderlinsky Gold Mines.* [Treats on the geology, drilling, shafts, underground methods, and drilling costs].—E. & M. J. June 12 1915; p 1017; pp 4*; 25c.

Turner, H. W.—*The Altai Region, Siberia.* [Gives a general review of the district, its geology, mineral resources, the production and some of the mines in operation; from Trans. of the Inst. of Mining and Metallurgy, London].—M. & S. P. June 26, 1915; p 985; pp 8½*; 20c.

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Vallentine, E. J.—*Valuation of Dredging Ground.* [Discussion].—Mg. Press Feb. 13 1915; p 262; 400 w*; 20c.

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Wright, Ira L.—*The Pinos Altos District, New Mexico.* [Treats on the history of gold mining in the district, and of the geology and mineralogy. Metallurgy is difficult and future of the district depends on finding a satisfactory process for treating the ore].—E. & M. J. Jan. 16 1915; p 133; 2¾ pp*; 25c.

Wright, W. H.—*Seneca Mining District, California.* [Takes up the geology and general mining practice in the district].—E. & M. J. June 19, 1915; p 1067; pp 2*; 25c.

——— *A Browning Steam Shovel Used in Surface Mining.* [Treats of the use of a novel steam-shovel excavator by the Interstate Gold Dredging Co., Cal.].—Mg. World Feb. 20 1915; p 378; 400 w*; 10c.

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——— *Conconully and Chesaclab, Washington.* [Reviews briefly various properties in the districts].—Alaska & N. W. Mg. Jnl. May 1915; p 97; pp 4½*; 35c.

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——— *Gold Dredging in the Philippines.* [An article in the Philippine Jnl. Sci. on the Guamos Placer Co.].—E. & M. J. April 17 1915; p 685; pp 4*; 25c.

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——— *Gold Placers in Ancient Channels of California.*—Mg. World March 27 1915; p 594; 500 w*; 10c.

——— *Koyukuk Placer-Mining District.* [A general review of the district, giving notes on production and nature of the ground].—E. & M. J. June 12 1915; p 1021; pp 1; 25c.

——— *Mining in Baja, California.* [Points out that, although mining in Lower California is in bad shape at present, the future of the section is promising].—E. & M. J. Jan. 23 1915; p 188; 750 w; 25c.

——— *Mining in Ontario in 1914.*—Canadian Mg. Jnl. Jan. 15 1915; p 39; 1 p; 25c.

——— *Operations of the Yukon Gold Company.* [Abst. from annual report dealing with operations in Alaska, California and British Columbia].—M. & S. P. June 5 1915; p 874; pp 1*; 20c.

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CHAPTER III.

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CHAPTER IV.

Lead, Zinc and Cadmium.

LEAD

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CHAPTER VI.

Alloys, Antimony, Chromium, Manganese, Molybdenum, Etc.

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CHAPTER VII.

Tin, Nickel, Cobalt, Aluminum.

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——— *Canada and Canadian Nickel* [Editorial discussing various phases of the Canadian nickel situation].—Mg. Press Feb. 13 1915; p 246; 1½ p; 20c

——— *Coal-Dust Fired Recuperators; Furnaces of the Canadian Copper Co.* [A description in German.]—Metall und Erz April 22 1915; p 163; pp 3*; 50c.

——— *Economic Minerals and Mining Industries of Canada.*—Report Canada Dept. of Mines, Mines Branch; pp 78*.

——— *Mining in Ontario in* 1914.—Canadian Mg. Jnl. Jan. 15 1915; p 29; 1 p; 25c.

——— *Mining in Ontario in* 1914. [Reviews production of gold, silver, nickel, copper and iron, and gives summary of dividends paid by gold and silver-mining companies].—Can. Mg. Jnl. Jan. 15 1915; p 39; 1 p; 35c.

——— *Refining Nickel in Canada.* [Editorial, discussing the proposal for legislation to compel the Mond Nickel Co. and the International Nickel Co. to refine their nickel in Canada].—Canadian Mg. Jnl. Jan. 15 1915; p 34; 750 w; 25c.

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——— *The Refining of Nickel.* [Editorial discussing the effort that is being made in Canada to have all Canadian nickel refined in that country; also gives some details of processes in use].—Can. Mg. Jnl. March 1 1915; p 132; 2½ pp; 35c.

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Arnold, J. O.; Read, A. A.—*The Chemical and Mechanical Relations of Iron, Cobalt and Carbon.* [A paper read before the Inst. Mech. Eng., London, March 19, 1915].—Engg. March 26 1915; p 362; pp 2*; 35c.

Ball, S. H.; Shaler, M. K.—*Geology of the Katanga Copper Deposits.* [Excerpts from "Economic Geology of the Belgian Congo, Central Africa," Econ. Geol. Oct., 1914].—E. & M. J. April 3 1915; p 608; pp 2½*; 25c.

Browne, DeCourcy B.—*Some Applications of Metallic Cobalt.* [Paper read before Am. Inst. of Metals].—Chem. Engr. Jan. 1915; p 37; 1½ p; 35c.

Kalmus, Herbert T.; Harper, C.—*Physical Properties of the Metal Cobalt.* [Reports on a large number of measurements of some of the important physical and mechanical properties of metallic co-

balt].—Jnl. Ind. & Engg. Chem. Jan. 1915; p 6; 11¼ pp*; 65c.

Kalmus, H. T.; Harper C.—*The Physical Properties of the Metal Cobalt.* [Gives its strength, electrical properties and many microscopic views].—Canada Dept. Mines, No. 309; pp 48*.

——— *Cobalt.* [Describes the properties of cobalt and its oxides and methods of reduction].—Eng. Feb. 12 1915; p 181; 1 p; 35c.

——— *Economic Minerals and Mining Industries of Canada.*—Report Canada Dept. of Mines, Mines Branch; pp 78*.

ALUMINUM

Guillet, L.—*Nouvelles Recherches zur les Alliages de Cuivre et de Zinc.* [New researches on the alloys of copper and of zinc].—Revue Métallurgie Oct. 1914; p 1094; 39 pp*; $1.15.

Hafer, Claud.—*Southern Aluminum Plant of North Carolina.* [Treats of former operations, plans of the new company, contractors' plant, furnace plant, Bayer process to be used, buildings and equipment, etc.].—Mg. World Jan. 16 1915; p 131; 4¼ pp*; 10c.

Hamilton, E. M.—*Aluminum Precipitation at Nipissing.* [A discussion of method of precipitation in use at the Nipissing low-grade mill, Cobalt, Ont., which has been the subject of criticism. The difficulties attendant upon the use of zinc are shown, and the economies are explained in detail].—E. & M. J. March 27 1915; p 568; 3¾ pp; 25c.

Hawley, F. G.—*The Phosphate Method for Alumina.* [Describes research on this method for the determination of alumina, which is stated to be entirely reliable and the best for general work].—E. & M. J. March 20 1915; p 536; 1¾ pp; 25c.

Lyon, Dorsey A.; Keeney, Robert M.; Cullen, Joseph F.—*The Electric Furnace in Metallurgical Work.* [Treats of the electro-thermic processes for the reduction of an ore to metal, or to a compound of the metal that is of value in itself, or is an aid in metallurgical work].—Bull. 77, U. S. Bureau of Mines; pp 216*.

Neumann, B.—*Das Metallhüttenwesen im Jahre* 1913. [The metallurgical industry in 1913].—Glückauf Jan. 16 1915; p 60; 6½ pp; Jan. 23; p 84; 5 pp; $1.

Paschal, Paul; Jouniaux, M.—*Etudes Physico-Chemiques sur l'Electrométallurgie de l'Aluminum.* [Physico-chemical studies on the electrometallurgy of aluminum].—Revue Métallurgie Oct. 1914; p 1069; 25 pp*; $1.15.

——— *Aluminum Production in* 1914. [Reviews the industry in 1914 and gives figures of production].—E. & M. J., Jan. 9 1915; p 80; 600 w; 25c.

——— *Aluminum in* 1914.—Mg. World Feb. 6 1915; p 287; 225 w; 10c.

CHAPTER VIII.

Miscellaneous Metals and Ores.

MERCURY

Boalich, E. B.—*Mineral Production of California for* 1913.—Bull. No. 68, California State Mg. Bureau; 156 pp*.

Eddy, Lewis H.—*Quicksilver in California in* 1914.—E. & M. J. Jan. 9 1915; p 68; 500 w; 5c.

Frech, F.—*Mineralvorkommen Anatoliens.* [Takes up gold, mercury, iron, zinc and their associated minerals].—Glückauf April 1915; p 412; pp 7; 50c.

Neumann, B.—*Das Metallhüttenwesen im Jahre* 1913. [The metallurgical industry in 1913].—Glückauf Jan. 16 1915; p 60; 6½ pp; Jan. 23; p 84; 5 pp; $1.

Pertusi, C.—*Einwirkung der Metalle auf Quecksilbercyanid.* [The action of metals on mercury cyanide]. — Chemiker-Ztg. Nov. 19 1914; p 1203; 1¾ pp; 35c.

Thornhill, E. B.—*Wet Method of Mercury Extraction.* [The sulphide of mercury is dissolved with alkali sulphide and then reprecipitated].—M. & S. P. June 5 1915; p 873; pp 1½; 20c.

——— *Foreign Mineral Trade of Great Britain.* [Reviews imports and exports of metals and ores].—E. & M. J. March 6 1915; p 442; 600 w; 25c.

——— *Mineral Production of Austria in* 1913. [Statistics from Glückauf on mine and metallurgical production for 1911, 1912 and 1913].—E. & M. J. Feb. 6 1915; p 278; 200 w; 25c.

——— *Quicksilver Industry of the United States in* 1914.—Mg. World Feb. 6 1914; p 284; 1 p; 10c.

——— *Quicksilver Production in* 1914. —E. & M. J. Jan. 9 1915; p 68; 500 w; 25c.

OSMIUM

Dunn, E. J.—*Tasmanian Osmiridium Fields.* [Treats of the geology of and the occurrence of osmiridium in the Bald Hills field].—Aust. Mg. Stand. Dec. 24 1915; p 539; 2⅛ pp*; 35c.

RADIUM AND RADIOACTIVES

Berthault, F.; Brétignière, L.; Berthault, P.—*Düngsversuche mit radioaktiven Stoffen.* [Fertilizer investigations with radio-active materials]. — Zentralblatt Kunstdünger-Ind. March 1 1915; p 50; 700 w; 35c.

Bleecker, Warren F.—*The Radium Situation.*—Met. & Chem. Eng. March 1915; p 143; 2¼ pp; 35c.

Henahen, T. R.—*Thirteenth Biennial Report of the Bureau of Mines of the State of Colorado for* 1913 *and* 1914.—Pp. 228*.

Hess, Frank L.—*Radium, Uranium and Vanadium in* 1914. [Abst. from report of U. S. Geol. Surv., treating of the production of minerals containing these elements, and mentions that a process for producing radium at one-third the previous cost has been developed by the National Radium Inst., under the supervision of the Bureau of Mines].—Mg. World Feb. 20 1915; p 376; 800 w; 10c.

Holmes, Joseph A.—*Report of the Director of Bureau of Mines.* [Deals mainly with safety work, conservation of natural gas and coal, and the cheap production of radium].—Mg. World Jan. 16 1915; p 137; 1½ pp; 10c.

Hunt, John Stuart.—*Uranium-Bearing Minerals in India.* [Calls attention to discoveries of uranium and radium-bearing ores in India].—Mg. World March 6 1915; p 467; 350 w; 10c.

Lind, S. C.—*Practical Methods for the Determination of Radium.* [A detailed description of the electroscope used in the analysis].—Jnl. Ind'l & Engg. Chem'y May 1915; p 406; pp 4*; 60c.

Lind, S. C.; Whittemore, C. F.—*The Radium-Uranium Ratio in Carnotites.* [Gives an electroscopic and chemical method for the determination of].—U. S. Bur. Mines Tech. Paper 88; pp 29*.

Petraschek, W. — *Der gegenwärtige Stand der Radiumproduktion aus Carnotit in den Vereinigten Staaten.* [The present position of radium production from carnotite in the United States].—Montanist. Rundschau Dec. 16 1914; p 689; 1 p; 35c.

Petrascheck, Dr. W.—*Die Natzbaren Radiumvorräte der Erde.* [The radium industry in Germany].—Montanistische Rundschau March 16 1915; p 165; pp 3½; 35c.

Sanderson, J. A.—*The Radio-active*

Content of Certain Minnesota Soils. [Gives method of determining thorium and radium].—Amer. Jnl. Sci. April 1915; p 391; pp 7; 65c.

Viol, Charles H.—*The Radium Situation in America.*—Radium March 1915; p 105; 16 pp; 35c.

THORIUM

Sanderson, J. A. — *The Radio-active Content of Certain Minnesota Soils.* [Gives method of determining thorium and radium].—Amer. Jnl. Sci. April 1915; p 391; pp 7; 65c.

MISCELLANEOUS ORES AND METALS (Unclassified)

Anderson, Olaf.—*The System Anorthite - Forsterite - Silica.* [Treats of the crystallizing of above minerals from the molten state as performed in the laboratory].—Amer. Jnl. of Scn. April 1915; p 407; pp 48*; 65c.

Beard, J. T.—*Mine Inspectors' Institute, U. S. A.* [Outlines the aim of and the proceedings at the eighth annual meeting].—Coal Age June 19 1915; p 1059; pp 1; 20c.

Beilby, G. T.—*The Hardening of Metals.* [Different treatments and combinations for making metals hard].—Faraday Soc. May 1915; p 212; pp 4; 50c.

Boalich, E. S.—*Mineral Production of California for* 1913.—Bull. No. 68, California State Mg. Bureau; 156 pp*.

Brown, A. P.; Ehrenfeld, Frederick.—*Minerals of Pennsylvania.* [This gives the mineralogic and economic value of the minerals found in Pennsylvania, together with their location].—Geol. Surv. Penn., Report No. 9; pp 160*.

Büchel, Herman.—*Die Mineralschätze der Belgischen Kongokolonie.* [Treats on the mineralization in the Belgian Congo district]. — Bergwerks-Zeitung April 10 1915; p 57; pp 2; 35c.

Burgess, G. K.; Waltenberg, R. G.—*Emmissiwity of Metals and Oxides.* [On measurements made with the micropyrometer].—U. S. Bur. Standards Scient. Paper 242; p 591; pp 15.

Bush, Faris V.—*Mining in the Pinos Altos District of New Mexico.* [Reviews the mining history of the district, but deals mainly with description of gold-mining operations, with brief mention of the occurrence of complex ores carrying lead, zinc, copper, gold and silver].—Mg. World Jan. 23 1915; p 165; 3¼ pp*; 10c.

Cartwright, Cosmo T.—*The Production of Copper, Gold, Lead, Nickel, Silver, Zinc, and Other Metals.* [Has tables giving values and quantities of metals mined in Canada during year 1913, particularly those mentioned in the title].—Canada Dept. Mines, No. 317; pp 77.

Dudley, Boyd, Jr.—*The Formation and Decomposition of Sulphates During Roasting.*—Met. & Chem. Eng. April 1915; p 221; pp 5*; May 1915; p 303; pp 5½* 60c.

Evans, I. P.—*Publications by Survey Authors on Metals and Non-Metals Except Fuels.* [An index of U. S. G. S. literature].—U. S. G. S. Bull. 580-P; pp 43.

Henahen, T. R.—*Thirteenth Biennial Report of the Bureau of Mines of the State of Colorado for* 1913 *and* 1914.—Pp. 228*.

Hore, Reginald E.—*The Canadian Mining Manual.* [A treatise of statistics and mineralogical information concerning the Canadian mining industry].—Mines Pub. Co., Toronto, Can.; pp 273*; book, $2.00.

Knopf, Adolph. — *A Gold-Platinum-Paladium Lode in Southern Nevada.* [A geological description of the country and the separate mines].—U. S. G. S. Bull. 620-A; pp 18*.

Lyon, D. A.; Bradford, R. H.; Arentz, S. S.; Ralston, O. C.; Larson, C. L.—*Metallurgical Treatment of the Low-Grade and Complex Ores of Utah.* [Treats on the refining of gold, silver, lead, copper, zinc, etc., in their complex forms].—U. S. Bur. Mines Tech. Paper 90; pp 39.

Lyon, Dorsey A.; Keeney, Robert M.; Cullen, Joseph F.—*The Electric Furnace in Metallurgical Work.* [Treats of the electro-thermic processes for the reduction of an ore to metal, or to a compound of the metal that is of value in itself, or is an aid in metallurgical work].—Bull. 77, U. S. Bureau of Mines; pp 216*.

McLeish, John.—*Annual Report on the Mineral Production of Canada During the Calendar Year* 1913. — Canada Dept. Mines, Mines Branch No. 320; pp 363.

Mudd, Seeley W.—*The Boss Mine, Good Springs, Nevada.* [Treats of the geology and ore occurrences on this property. The ores carry gold, silver, copper, platinum, palladium, etc.].—Mg. Press Feb. 20 1915; p 297; 750 w; 20c.

Parker, Edward W.—*Mineral Products of the United States; Review of Conditions and Output in* 1912 *and* 1913, *with a Summary of Mineral Production in* 1913, *compiled by W. T. Thom.*—U. S. Geol. Surv., Min. Res. of U. S., 1913; I:A; pp 169.

Ransome, F. L.; Gale, H. S.—*Contributions to Economic Geology.* [Short papers and reports taking up both metals and non-metals excepting fuels].—U. S. G. S. Bull. 580; pp 462*.

Rickard, T. A.—*Persistence of Ore in Depth.* [A reply to his paper read at the I of M. and M.].—Queensland Mg. Jnl. May 15 1915; p 223; pp 2; 35c.

Schulz, I. P.—*Neue Bestimmungen der Konstanten der Fallgesetze in der nassen Aufbereitung mit Hilfe der Kinematographie und Betrachtungen über das Gleichfälligkeitsgesetz.* [New method of determining moisture in materials].—Glückauf May 8 1915; p 457; pp 7½*; May 22 1915; p 510; pp 5*; $1.

Smith, Geo. Otis.—*Opportunities to Make America Metallurgically Independent.* [Calls attention to the present opportunity to increase the domestic production of certain mineral products heretofore largely imported, but which to advantage might be produced here].—Mg. World March 20 1915; p 544; 1 p; 10c.

Winchell, A. N.—*Petrology and Mineral Resources of Jackson and Josephine Counties, Oregon.*—Min. Res. of Ore. Vol. 1, No. 5; pp 265*.

——— *Der Erzbergbau in die Turkei.* [Ore mining in Turkey].—Kali, Erz & Kohle Jan. 15 1915; p 19; 2 pp; 35c.

——— *Die Berg- und Hüttenwerksproduktion Oesterreichs im Jahre 1913.* [The mine and smelter production of Austria in 1913].—Montanist. Rundschau Dec. 1 1914; p 669; 4½ pp; 35c.

——— *Economic Minerals and Mining Industries of Canada.*—Report Canada Dept. of Mines, Mines Branch; pp 78*.

——— *Mineral Output of the United Kingdom in 1913.* [Abst. from Annual Gen. Rep. on Mines and Quarries].—Iron & C. Trades Rev. Jan. 8 1915; p 49; 1 p; 35c.

——— *Mineral Production of Austria in 1913.* [Statistics from Glückauf on mine and metallurgical production for 1911, 1912 and 1913].—E. & M. J. Feb. 6 1915; p 278; 200 w; 25c.

NON-METALS.

CHAPTER IX.

Fuels and By-Products.

COAL

Coal Fields and Mining

Andros, S. O.—*Coal Mining Practice in District No.* 3. [This treats mostly on underground work and hoisting and has some tables of useful information].—Ill. State Geol. Surv., Bull. No. 9; pp 30*.

Andros, S. O.—*Coal Mining Practice in District No.* 6. [Describes various underground operations used in Illinois coal mines].—State Geol. Surv. Bull. 8, Nov. 1914; pp 49*.

Andros, S. O.—*Coal Mining Practice in District IV, Illinois.* [Methods of mining, ventilating, timbering, blasting, etc., are described].—Ill. Geol. Surv. Bull. 12; pp 57*.

Bauer, Julius.—*Russlands Steinkohlenvorkommen und deren Ausbeutung.* [Describes Russia's anthracite fields and companies, including their dividends].—Der Kohleninteressent March 15 1915; p 41; pp 1½; April 1 1915; p 49; pp 1½; April 15 1915; p 57; pp 1½; $1.05.

Beard, J. T.—*Mine Inspectors' Institute, U. S. A.* [Outlines the aim of and the proceedings at the eighth annual meeting].—Coal Age June 19 1915; p 1059; pp 1; 20c.

Becker, W. A.—*Centrifugal Pumps in Coal Mines.* [Discusses the design and operation of the volute and multistage centrifugal pump].—Coal Age May 1 1915; p 757; pp 3*; 20c.

Beddow, Rees H.—*Annual Report of the State Mine Inspector of New Mexico;* year ending Oct. 31 1914; pp 56.

Brown, E. O. Forster.—*Coal Mining in Mexico.* [Reviews the principal districts in general and gives the costs and methods of operation].—I. & C. Tr. Rev. April 16 1915; p 525; pp 3½*; 35c.

Burrows, J. S.—*The Coal Fields of Ohio.* [A description of the Ohio coal fields containing the best authenticated data].—Coal Age Jan. 16 1915; p 124; 2 pp*; 20c.

Burrows, J. S.—*The Coal Fields of West Virginia.* [Describing the geology, importance of districts and the more important railroads].—Coal Age April 17 1915; p 670; pp 3*; 20c.

Cady, Gilbert H.—*Coal Resources of District* 1 (*Longwall, Illinois*). [Has chapters on general and economic geology with diamond drill records of the various counties].—State Geol. Surv. Univ. Ill. Bull. 10; pp 149*.

Cady, G. H.—*Coal Resources of District* 1 *(Longwall) Illinois.* [Takes up the deposits in the various fields of the district].—Ill. Geol. Surv. Bull. 10; pp 149*.

Carpenter, C. B.—*Electric Shot Firing in Kansas.* [A method of firing throughout the mine with electricity].—Coll'y Eng. June 1915; p 596; pp 2½*; 30c.

Clark, Robert G.—*Arching in Collieries.* [Describes conditions that have to be contended with underground].—Colly. Engr. Jan. 1915; p 292; 4½ pp*; 35c.

Cooper, M. D.—*Electric Shotfiring in Bituminous Mines.*—Coal Age Feb. 6 1915; p 255; 1 p*; 20c.

Dean, Samuel.—*A Tour Through European Coal Mines.* [Belgians recommend stone dusting. Systematic timbering generally employed. Miners' wages much less than in America. Girls employed to pick slate].—Coal Age Jan. 16 1915; p 110; 3¼ pp*; 20c.

De Wolfe, E. C.—*A Square Working-Place with an Overcutting Machine.* [Gives a method of working with the overcutting machine].—Coal Age April 24 1915; p 714; pp 2½*; 20c.

DeWolfe, E. C.—*Spruce River Coal Company Operations in Coal River, W. Va.* [Describes completely the practice in vogue at this mine].—C. Tr. Bull. May 1 1915; p 29; pp 6*; 25c.

Dick, W. J.—*Notes on Coal Mining in Nova Scotia.* (Paper read before Western branch Canadian Mg. Inst.).—Bull. 33 Canadian Mg. Inst. Jan. 1915; p 60; 8 pp; 35c.

Donkin, Hiram.—*Report of the Mines of Nova Scotia,* 1914. [Contains report

of the mines and quarries of Nova Scotia, and summary of reports from deputy inspectors and others, for the fiscal year ended Sept. 30, 1914].—Report Dept. of Public Works and Mines, Nova Scotia; pp 167*.

Dowling, D. B.—*Coal Fields and Coal Resources of Canada.* [Results of coal tests, description of veins and properties of coal in various districts].—Canada Geol. Surv. Memoir 59; pp 174*.

Evans, George D.—*R. R. White Coal Co. Mines.* [Describes the methods and equipment of some well managed coal mines in the New River, W. Va., field].—Colly. Engr. March 1915; p 401; 6⅔ pp*; 35c.

Folprecht, H.—*Ein Beitrag zur Kenntnis des Südrandes des Mährischlesischpolnischen Kohlenbeckens.* [Reviews the results of drilling and discusses the geology of the coal seams in southern Mährisch-Ostrau].—Montanist. Rundschau June 1 1915; p 393; pp 8*; 35c.

Frech, F.—*Mineralvorkommen Anatoliens.* [The occurrence of coal, oil and phosphates in Anatoliens]. — Glückauf May 8 1915; p 464; pp 6; 50c.

Gleason, F. A.—*Occurrence of Coal in the Northern Anthracite Fields.* [Reviews the history of and treats on the present mining methods]. — Penn. State Mg. Quar'ly April 1915; p 127; pp 9; 35c.

Glover, Percy S.—*Surface Earthing at Scottish Mines.* (Paper read before Assn. Mg. Elec. Engrs. West of Scotland Branch).—I. & C. Tr. Rev. Jan. 1 1915; p 20; 1⅔ pp*; 35c.

Grady, W. H.—*Cost Factors in Coal Production.* [Describes various methods of operation and gives cost and production data on the same].—A. I. M. E. Bull. May 1915; p 1035; pp 38*; 35c.

Gray, F. W.—*The Coal Trade in Nova Scotia in* 1914: *A Resume.*—Canadian Mg. Jnl. Jan. 15 1915; p 41; 5¼ pp*; 25c.

Hardy, Wm.—*Mining Practice in the Longwall District of Illinois.* [Treats on the gob fire, timbering and costs].—Coal Trade Bull. April 1 1915; p 27; pp 2; 25c. *try in Germany.*—E. & M. J. Jan. 23 1914;

Harrington, C. F.—*New System for Burning Powdered Coal in Metallurgical Furnaces.* [The use of powdered coal with air].—Engg. News May 27 1915; p 1028; pp 2*; 25c.

Holmes, Joseph A.—*Report of the Director of Bureau of Mines.* [Deals mainly with safety work, conservation of natural gas and coal, and the cheap production of radium].—Mg. World Jan. 16 1915; p 137; 1½ pp; 10c.

Holmes, Henry.—*The Transformation of a Durham Colliery.* [Shows how the management have completed the undertaking at the Murton Colliery].—Colly Guard. May 21 1915; p 1003; pp 1¾*; 35c.

Jacobs, E. *Coal Mining in British Columbia in* 1914.—Canadian Mg. Jnl. Jan. 15 1915; p 28; 2¾ pp; 25c.

Johnson, R. G.—*Lining and Sealing the Wet Jed Shafts, Near Welch, W. Va.* [Describes an instance of lining a wet shaft with reinforced concrete and then forcing grout under pressure into the space between the lining and the rock].—Coal Age Jan. 2 1915; p 2; 5 pp*; 25c.

Jones, W. W.—*Equipment and Operation of a New Utah (Coal) Mine.*—Coal Age Feb. 27 1915; p 362; 5 pp*; 25c.

Jordan, H. K.—*The South Wales Coal Field.* [Abridged from paper read before South Wales Inst. Eng.].—Colly. Guard. April 23 1915; p 873; pp 1¾*; 35c.

Keighley, Fred C.—*Mining Coal Under Friable Roof in Connection with a Very Soft Floor or Bottom.*—C. Tr. Bull May 1 1915; p 47; pp 4; 25c.

King, Charles B.—*Russia: Its Future as a Coal and Iron Producer.* [Gives details of present development and immediate probabilities].—Engg. Mag. Jan. 1915; p 481; 12 pp*; 35c.

Leblanc, F. L.—*Longwall Mining in Alberta.* [Discusses the method of mining in a general way].—Coal Age April 24 1915; p 712; pp 2*; 20c.

Mikesell, H. S.—*Value of Daily Cost Sheets.* [Illustrates a daily cost sheet form and points out its advantages].—Coal Age May 15 1915; p 838; pp 2½; 20c.

Padour, Ing. A.—*Matznahmen zur Abwendung und Einschränkung der Schwimmsandeinbrüche im nordwestböhmischen Braunkohlenreviere.* [Treats on a survey of the coal districts of northwestern Bohemia and takes up some of the geology of the formation].—Montanist. Rundschau April 1915; p 205; pp 5*; 35c.

Padour, I. A.—*Matznahmen zur Abwendung und Einschränkung der Schwimmsandeinbrüche im Nordwestböhmischen Braunkohlenreviere.* [On the method used in getting around quicksand in excavating in the coal regions or northwestern Bohemia].—Montanist. Rundschau April 16 1915; p 253; pp 6*; May 1 1915; p 285; pp 1*; May 16 1915; p 328; pp 5*; $1.05.

Paton, J. D.—*Modern Developments in Hydraulic Stowing.* [Its application in

the Staffordshire and District coal fields, England, and the recovery of abandoned coal].—Colly. Guard. April 23 1915; p 859; pp 1*; 35c.

Phelps, C. C.—*Driving Gangways in Anthracite Mines, Pennsylvania, by Improved Methods.* [Discusses the use of Jackhamer drills and portable electric compressors].—May 29 1915; p 926; pp 1½*; 20c.

Phelps, C. C.—*Some Jackhamer Successes in Rock Drilling.* [Describes their use in sinking mostly].—Comp. Air June 1915; p 7628; pp 3*; 20c.

Phelps, Charles C.—*Some Successes in Rock Drilling.* [The uses of the Jackhamer drill in the coal mines.]—Coal Age April 3 1915; p 596; pp 2*; 20c.

Pilkington, Charles; Wood, Percy Lee. —*Sinking by the Drop-Shaft Method.* [Describes the sinking of the Astley Green shaft by means of the drop-shaft method and underhanging tubbing].—Colly. Engr. Jan. 1915; p 303; 6 pp*; 35c.

Price, William Z.—*Coal Stripping in Kansas.* [Describes different methods in operation for raising the coal from the excavations].—Colly. Engr. Jan. 1915; p 285; 3 pp*; 35c.

Price, William Z.—*Mining in the Broad Top Coal Field, Pennsylvania.* [Describes the geology and methods of mining used].—Colly. Eng. May 1915; p 517; pp 5*; 35c.

Price, William Z.—*Operations in the New River Field, West Virginia.* [Gives a set of safety rules employed, besides a general description of the mine surface lay-out].—Colly. Eng. May 1915; p 533; pp 5½*; 35c.

Price, William Z.—*Surveying in Anthracite Mines.* [A description of office methods and calculations].—Colly. Eng. May 1915; p 541; pp 3*; 35c.

Ravey, Martin J.—*The Peace River Country, Canada.*—Canadian Mg. Jnl. Jan. 1 1915; 1½ pp; 35c.

Reynolds, Sim.—*Concrete in Mine Work.* [Describes method of building strong and tight concrete stoppings of cheap material such as is usually at hand].—Colly. Engr. March 1915; p 407; 1⅓ p*; 35c.

Roan, J. M.—*Coal Mining in Ohio During* 1914. [Detailed account of the activities of the Industrial Commission of Ohio, Department of Inspection, Division of Mines, for the fiscal year ending Nov. 15, 1914. More than two-thirds of all accidents attributable to falls of roof].—Coal Age Jan. 16 1915; p 118; 3¾ pp*; 20c.

Roderick, James E.—*Report of the Department of Mines of Pennsylvania,* 1913. [In two volumes: Part I, Anthracite; Part II, Bituminous].—Harrisburg, Pa.; Part I, 606 pp; Part II, 1078 pp*.

Sampson, R. J.—*Harlan Coal Field in Southeastern Kentucky.* [Describes the geology of the region and the coal and the extent to which it is developed].—Colly. Engr. Feb. 1915; p 371; 3 pp; 35c.

Siddall, Frank N.—*Some Notes on Supporting the Roof in Coal Mines.* [From paper read before Manchester Geol. & Mg. Soc.].—Colly. Guard. March 12 1915; p 539; 1½ p; 35c; Coal Trade Bull. April 15 1915; p 58; pp 3*; 25c.

Smith, George Otis.—*Thirty-Fifth Annual Report of the Director of the United States Geological Survey to the Secretary of the Interior for the Fiscal Year Ended* June 30 1914.—Report, U. S. Geol. Surv.; pp 163*.

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Dickson, James.—*Longwall Conveyor and Loader for Thin Seams.* [A sectional coal conveyor and loader that is moved forward following the face. The results obtained by its use have been quite satisfactory and the cost of production has been reduced].—Coal Age Feb. 27 1915; p 368; 1¾ pp*; 20c.

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——— *Storage-Battery Locomotives in a Developing Mine.* [Treats of the use of storage-battery locomotives in the new mine of the Nokomis Coal Co. at Nokomis, Ill.]—Coal Age Jan. 16 1915; p 123; 500 w; 20c.

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Greenfield, R. C.—*Notable Hoisting Installations.* [Describes some radical departures in the design and operation of mine hoists. One of the plants is capable of handling 4000 tons of coal in 8 hours

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Brown, E. O. Forster.—*Coal Mining in Mexico.* [Reviews the principal districts in general and gives the costs and methods of operation].—I. & C. Tr. Rev. April 16 1915; p 525; pp 3½*; 35c.

Brown, G. M.—*Coal Preparation in Oklahoma.* [Classifies into three sizes and describes the washing].—Coal Age June 26 1915; p 1090; pp 2*; 20c.

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Holbrook, E. A.—*The Wendell Continuous Centrifugal Dryer.* [Treats of early history of development of the machine; difficulties to be overcome in continuous drying of washed coal. Also gives detailed description of the dryer and its continuous operation, together with tabulated results of an installation of three of these machines].—Coal Age March 13 1915; p 456; 2¼ pp*; 20c.

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Holmes, Henry.—*The Transformation of a Durham Colliery.* [Shows how the management has re-modeled the undertaking at the Murton Colliery].—Coll'y Guard. May 21 1915; p 1065; pp 1½*; 35c.

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——— *New Heapstead and Screens at Choppington Colliery.* [A concise description, plans and illustrations of the plant].—Ir. & C. Tr. Rev. April 2 1915; p 476; pp 1½*; 35c.

——— *Stone Grinding Plant at Cadeby Main Colliery.* [Illustrates and gives plans of the plant with a description].—The Colly. Guard. March 26 1915; p 647; pp 1½*; 35c.

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Bart, John G.—*Working With a New Type of Coal Cutter.* [Results obtained with a machine that cuts an 8-in. kerf in the bone parting of a 6-ft. seam of bituminous coal].—Coal Age Feb. 27 1915; p 370; 2 pp*; 20c.

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——— *The Cost of Mining Coal.* [Presents chart showing the cost of lump and mine-run coal for all types of mining machines and mining rates, with explanation].—Coal Age Jan. 16 1915; p 122; 1 p*; 20c.

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Shearer, David R.—*Electricity in Coal Mining.* [Treats briefly on the theory of electricity but mostly on its application in coal mines].—McGraw-Hill Book Co., N. Y.; pp 84*; book, $1.50.

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CHAPTER X.

Petroleum, Natural Gas, Etc.

PETROLEUM

Oil Fields, Mining, Transport, Etc.

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CHAPTER XI.

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PART III.

TECHNOLOGY.

MINES AND MINING (a*).

CHAPTER XIII.

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MINING MISCELLANY

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Eckardt, A.—*Betriebsüberwachung im Bergbau.* [Discusses safety underground]. Glückauf April 17 1915; p 393; pp 4½; 50c.

Estep, H. Cole.—*How Carson Lake Was Drained.* [Describes unusual project now being executed by Oliver Iron Mg. Co. to obtain ore under bed].—Iron Tr. Rev. Jan. 14 1915; p 129; 2 pp*; 25c.

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Freeman, O. W.—*The North Moccasin Mountains of Montana.* [Takes up a description of some of the mines and the general geology of the country].—Mg. World May 22 1915; p 947; p 2*; 10c.

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Gerke, Arthur.—*Förderwagenkipper im Betriebe unter Tage.* [Car dumpers in underground operation].—Berg & Hüttenm. Rundschau Jan. 20 1915; p 17; 6½ pp*; 35c.

Gleason, F. A.—*Occurrence of Coal in the Northern Anthracite Fields.* [Reviews the history of and treats on the present mining methods].—Penn. State Mg. Quar'ly April 1915; p 127; pp 9; 35c.

Gottsberger, B. B.—*Miami's Copper Production and Costs in* 1914. [Gives a brief review on their mining and milling practice with some figures on their cost and production].—Mg. World May 29 1915; p 988; pp 1; 10c.

Gray, F. W.—*Coal Waste in Canada and the Commission of Conservation.* [Discusses inefficiency in the burning and mining of coal, mostly in the Nova Scotia field].—Can. Mg. Jnl. April 1 1915; p 221; pp 2; 35c.

Hardy, Wm.—*Mining Practice in the Longwall District of Illinois.* [Treats on the gob fire, timbering and costs].—Coal Trade Bull. April 1 1915; p 27; pp 2; 25c.

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Hoyt, B. F.—*Gold Hill Section of Maiden District, Montana.* [Briefly describes mining operations in the district, giving production of some of the mines].—Mg. World Jan. 23 1915; p 171; 1½ p*; 10c.

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Jackling, D. C.—*Operations and Costs at the Chino in* 1914. [Takes up the steam shoveling and its costs, the mill, its products and costs and the ore reserves of the company].—Mg. World May 29 1915; p 993; pp 1½; 10c.

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Keighley, Fred C.—*Mining Coal with Friable Roof and Soft Floor.* [Takes up the method used for taking out the pillars, timbering, etc.].—Coal Age June 12 1915; p 1008; pp 3*; 20c.

Lakes, Arthur.—*The Great China Clay Deposits of Cornwall, England.* [Gives association of clay deposits and the old tin deposits, geology and method of working].—Can. Mg. Jnl. April 1 1915; p 211; pp 3¼*; 35c.

Leblanc, E. L.—*Longwall Mining in Alberta.* [Discusses the method of mining in a general way].—Coal Age April 24 1915; p 712; pp 2*; 20c.

Lincoln, Francis Church.—*Gold Mining in Bolivia.* [Reviews former unsuccessful attempts at placer mining, but deals mainly with active lode mining at the Olla de Oro and Incaoro mines].—E. & M. J. Feb. 20 1915; p 351; 4 pp*; 25c.

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MacDonald, J. A.—*Staking Out Mineral Claims in Ontario.* [Describes the method of procedure].—E. & M. J. Feb. 13 1915; p 321; 1 p*; 25c.

Macdowell, Charles H.—*German and Other Sources of Potash Supply.* [Paper

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Marstrander, Rolf.—*The Mining Industry in Uruguay.* [Treats of drill exploration, quarrying and gold mining, describing two mines].—E. & M. J. March 13 1915; p 484; 1 p; 25c.

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Mulholland, J. H.—*Arizona Mining Men Favor Bureau of Mines.*—Mg. World March 27 1915; p 597; 1½ p; 10c.

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Olden, Charles—*Emeralds: Their Mode of Occurrence and Methods of Mining and Extraction in Colombia?* [Reprinted from the I. of M. and M. transactions, England].—Jnl. Royal Soc. of Arts June 11 1915; p 685; pp 5½; 35c.

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Price, William Z.—*Mining in the Broad Top Coal Field, Pennsylvania.* [Describes the geology and methods of mining used].—Colly. Eng. May 1915; p 517; pp 5*; 35c.

Price, William Z.—*Operations in the New River Field, West Virginia.* [Gives a set of safety rules employed besides a general description of the mine surface lay-out].—Colly. Eng. May 1915; p 533; pp 5½*; 35c.

Purington, C. W.—*Improvements at Lena Goldfields.* [Extracts from report of consulting engineer for the Lena Goldfields, Ltd., to the Lenskoi board in Russia].—E. & M. J. Feb. 13 1915; p 333; 1 p; 25c.

Randolph Beverley S.—*The Theory of the Arch in Mining.* [Treats of development of the arching line of stress in the overlying strata when the supporting strata are removed].—Colly. Engr. March

Read, Thomas T.—*Lake Superior Copper Mining: Present and Future.* [Describes mining practice and gives notes on mining costs, underground tramming, use of one-man drills, car-loading systems, stope filling, etc.].—Mg. Press Feb. 6 1915; p 209; 8 pp*; 20c; Mg. Mag. April 1915; p 220; pp 5*; 35c.

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Rosenberger, A.—*Ein Vorschlag zur Einführung einer Automatisch wirkenden Wagenkuppling.* [Describes an automatic car coupling].—Zts. Zentral Verbd. May 1 1915; p 121; pp 2½*; 35c.

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Smith, W. H.—*Canadian Molybdenite Deposits.* [Treats of the occurrence and mining of molybdenite in British Columbia, Ontario and Quebec].—E. & M. J. Feb. 6 1915; p 271; 1¼ p; 25c.

Smither, T. M.—*Stoping Methods at the Nevada Wonder Mine.* [Describes the ore body, method of stoping and timbering].—M. & S. P. May 15 1915; p 757; pp 3*; 20c.

Stone, S. R.—*Increasing Use of Concrete in Mine and Mill.* [Reviews the work done in 1914 in which concrete was used].—Mg. & Eng. World Jan. 2 1915; p 42; 2½ pp*; 10c.

Stronck, H. N.; Billyard, J. R.—*Visualizing Working Conditions in a Mine.* [Shows how the bulletin board can be advantageously used in mine management for the purpose mentioned].—Mg. Press March 20 1915; p 440; 3 pp*; 20c.

Swart, W. G.—*The First Move in Mining Rejuvenescence.* [Discusses the present situation and offers remedies for its betterment].—Mg. Wld. Jan. 9 1915; p 89; 2¼ pp; 10c.

Sundt, F. A.—*Corocoro Copper District of Bolivia.* [Describes the ores and mining operations of the district].—E. & M. J. Jan. 23 1915; p 189; 1¼ p; 25c.

Thomas, W. P.—*A Modern Coal Mine in Iowa.* [Takes up the construction in

general].—Coal Age May 29 1915; p 920; pp 2*; 20c.

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Winchell, H. V.—*Apex Litigation. Jim Butler vs. West End.* [Takes up the case from a mining standpoint and not from the court's view].—M. & S. P. May 15 1915; p 763; pp 3*; 20c.

——— *A Modified Square Set System.* —Mg. World May 22 1915; p 953; pp ¾*; 10c.

——— *Air Blasts in Michigan Mines.* [A general review of the blasts occurring in the Michigan copper country].—Comp. Air June 1915; p 7626; pp 1½; 20c.

——— *Bawdwin Mines of the Burma Corporation.* [Describes these mines which yield zinc-lead-silver ores, giving a historical note, and outline of development work, production, etc.].—E. & M. J. Jan. 23 1915; p 177; 4 pp; 25c.

——— *Bergbau und Hüttenwesen Spaniens im Jahre* 1912. [Discusses the mines and smelting industry of Spain in 1912].—Glückauf May 1 1915; p 443; pp 6½; 50c.

——— *Biennial Report of the Director* [A synopsis of the work done and under way for the first half year of 1914].—Mich. Geol. & Biolog. Surv. Publ. 17 Series 14. pp 104.

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——— *Congress Asked to Aid Mine and Safety Work.* [Discusses the Foster bill to provide for the establishment and maintenance of mining-experiment and mine-safety stations for making investigations and disseminating information among employes in mining, quarrying, metallurgical and other mineral industries].—Mg. World Jan. 23 1915; p 169; 2 pp; 10c.

——— *Design for a Hydraulic Fill Debris Dam.*—Mg. World Jan. 23 1915; p 181; 100 w*; 10c.

——— *De-Silting of Rivers.* [Tells of the necessity of de-silting the rivers in Kinta, Malay, as regards the tin industry].—Malay Tin & Rubb. Jnl. March 24 1915; p 23; pp 1½; 25c.

——— *Excellent Reports from Alaska Properties for November.* [Report of mill and mining operations and cost of same].—Mg. Wld. Jan. 9 1915; p 88; 800 w; 10c.

——— *Gold Mining in Eastern Asia.* [Gives notes on alluvial gold mining in the Lena and Amur basins in Siberia and northern China].—Mg. Press Feb. 6 1915; p 224; 500 w*; 20c.

——— *Gold Placers in Ancient Channels of California.*—Mg. World March 27 1915; p 594; 500 w*; 10c.

——— *Mining Prospectuses.* [Calls attention to some of the inaccurate methods employed in getting up mining prospectuses].—E. &. M. J. Jan. 23 1915; p 183; 1½ p; 25c.

——— *Mining Tin in Northern Nigeria.* [Treats on the general methods used].—Excavating Eng. May 1915; p 295; pp 3*; 20c.

——— *Mining Trinidad Asphalt.* [Gives

notes on mining and transportation of the asphalt].—E. & M. J. March 13 1915; p 483; 500 w*; 25c.

——— *Mining in Baja, California.* [Points out that, although mining in Lower California is in bad shape at present, the future of the section is promising].—E. & M. J. Jan. 23 1915; p 188; 750 w; 25c.

——— *Mining in Rhodesia.* [Reviews mining conditions and gives statistics of mineral production during the year 1913].—S. Afr. Eng. Dec. 1914; p 112; 900 w; 35c.

——— *Mining in South Africa in* 1914. [Reviews mining operations and conditions at the Rand gold mines and also tin, coal, diamond and copper mining, with statistics of productions].—Mg. World Feb. 6 1915; p 307; 6 pp*; 10c.

——— *Mining in the Federated Malay States.* [A general review of the tin industry in that section].—Mg. Jnl. May 8 1915; p 319; pp 2; 35c.

——— *Myers-Whaley Machines on the Rand.* [Describes the use of the Myers-Whaley shoveling machines at the Crown Mines].—E. & M. J. Jan. 16 1915; p 150; 1 p*; 25c.

——— *Notes on Mining in Chile and Bolivia.* [Reviews mining, milling and smelting operations at a number of mining properties in these countries].—Mg. World Feb. 6 1915; p 304; 3 pp*; 10c.

——— *Notes on Tin Mining Operations and Labor in Malaya.* [Outlines mining operations, power equipment, labor, etc., at the tin mines of the Pahang Con. Co.].—Mg. World Jan. 23 1915; p 180; 700 w; 10c.

——— *North Butte's Fourth Quarterly Report,* 1914.—Mg. World Feb. 13 1915; p 334; 700 w; 10c.

——— *Oxyacetylene Welding in Mining.* [Describes some of the applications of this process of welding at Butte, Mont., and elsewhere].—E. & M. J. Feb. 27 1915; p 393; 5 pp*; 25c.

——— *Report of the Director of the U. S. Bureau of Mines for the Year* 1914. [This contains in concise form the work of the Bureau of Mines for the year 1914].—pp 101.

——— *Steel Ladders vs. Wooden.*—Mg. World Feb. 27 1915; p 422; 450 w; 10c.

——— *Stock Pile Work at the Colby Mine.* [Describes trestles and steam shovel work on the iron ore stock pile].—Excavating Eng. April 1915; p 257; pp 1½; 20c.

——— *Stoping Methods in Mining.* [Treats of supports, methods of stoping, with a comparison of the various systems].—Can. Engr. Feb. 18 1915; p 269; 2 pp; 35c.

——— *Summary Report of the Department of Mines, Canada.* [A summary of the work done during the year ending Dec. 31 1913].—Dept. Mines, Ottawa, Canada; Report 285; pp 214*; 35c.

——— *The Comstock Lode in* 1914. [Reviews mining conditions].—E. & M. J. Jan. 16 1915; p 155; 1 p; 25c.

——— *The Engineering Congress and Mining Men.* [Editorial, calling attention to the importance of the International Engineering Congress which is to be held in San Francisco in 1915, to mining men].—Mg. Press Jan. 16 1915; p 94; 700 w; 20c.

——— *The Silver King Consolidated Mining Company.* [Treats of the history of the mine, the ore deposits, surface improvements, etc.].—S. L. Mg. Rev. Jan. 30 1915; p 7; 3 pp*; 25c.

——— *The State of the Mining Industry in Germany.*—E. & M. J. Jan. 23 1914; p 204; 550 w; 25c.

——— *The Storage-Battery Locomotive.* [Editorial discussing the use and economy of these locomotives for mine use].—Coal Age March 6 1915; p 430; 800 w; 20c.

——— *The Value of Publicity to Mining.* [Editorial].—Mg. World Feb. 13 1915; p 338; 250 w; 10c.

MINES AND MINING (b*).

CHAPTER XIV

TRANSPORT AND HAULAGE

Transport (Rail)

Anderson, A. R.—*A Mine with a Haulage Schedule.* [Mentions Sterling Coal Co. running motors on scheduled time and the efficiency of the system].—Coal Age April 3 1915; p 602; pp 2*; 20c.

Bevan, T. H.—*Summary of Mexican Oil Industry; Review of Conditions and Operations in* 1914. [Reviews production and transportation from an economic view-point].—Oildom June 1915; p 11; pp 5½; 30c.

Buck, C. A.—*The Tofó Iron Mines, Chile in* 1914. [Treats of the ores, transportation and power equipment of these mines, now operated by the Bethlehem-Chile Iron Mines Co.].—E. & M. J. Jan. 16 1915; p 145; 1½ pp*; 25c.

Bush, Faris V.—*The Mogollon Mining District of New Mexico.* [Treats of the sluicing of lumber and of transportation across the Gila river by means of cableway].—Mg. World Feb. 13 1915; p 327; 1¼ p*; 10c.

Cox, J. B.—*Electrical Operation of the Butte, Anaconda & Pacific Railway.* (Paper read before the Am. Inst. Elec. Engrs.).—Mg. Wld. Jan. 9 1915; p 83; 5 pp*; 10c.

Cox, J. B.—*Some Results of Butte, Anaconda & Pacific Railway Electrification.* [Abst. of article in General Electric Review].—E. & M. J. March 20 1915; p 529; 2 pp; 25c.

Durant, H. T.—*Packing of Machinery, Etc., for Shipment Abroad.*—E. & M. J. Jan. 23 1915; p 205; 600 w; 25c.

Gilpin, C. D.—*Application of Electricity to the Ore Handling Industry.* [Gives a general description of the typical methods of handling ore from the mine to the blast furnace, describing in a general way the machinery used in the different steps of the process].—Proc. A. I. M. E. March 1915; p 397; 19 pp*; $1.10.

Higgins, Will C.—*A Great Tunnel Enterprise for Tintic Mining District, Utah.* [Outlines the proposed drainage and transportation tunnel proposition for the benefit of mines of the Tintic district].—S. L. Mg. Rev. Feb. 28 1915; p 9; 4 pp*; 25c.

Knickerbocker, E. J.—*Analysis of Illinois Freight Rates.*—Coal Age June 19 1915; p 1056; pp 1*; 20c.

Lakes, Arthur.—*Mining in Lake Districts of British Columbia.* [Treats of the topographical peculiarities of the region, transportation, geological and mining features, etc.]—Mg. World Feb. 27 1915; p 411; 4 pp*; 10c.

Lamb, Mark R.—*West Coast Business.* [Discusses business conditions, influence and indications in the west-coast countries of South America].—E. & M. J. March 6 1915; p 433; 5 pp*; 25c.

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MINES AND MINING (c*)

CHAPTER XV.

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MILL AND MILLING.

CHAPTER XVI.

SAMPLING

Adams, L. D.—*The Weedon or McDonald Copper Mine.* [Treats of topography, geology, mining operations and methods, costs, etc.].—Bull. Can. Mg. Inst. Feb. 1915; p 51; 12 pp; 35c.

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Fuest, Arthur.—*Practical Points on Sampling.* [Describes some of the practical details to be observed in taking and cutting down samples for mine valuation as well as for metallurgical test].—Mg. Press March 6 1915; p 368; 2½ pp*; 20c.

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Saint-Smith, E. C.—*Big Wonder Syndicate's Auriferous Lodes.* [Is a discussion on the geology and the results of a number of samples].—Queensland Mg. Jnl. May 15 1915; p 211; pp 5*; 35c.

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Williams, Leslie B.—*The Importance of Efficient Mine Sampling.*—Monthly Jnl. Cham. of Mines, W. Aust. Nov. 30 1914; p 304; 4½ pp; 75c.

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Goodwin, L. Hall.—*Shaft-Rockhouse Practice in the Copper Country—I.* [Describes the general coarse crushing practice in the copper mines of Michigan].—E. & M. J. June 19 1915; p 1061; pp 5½*; 25c.

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CHEMISTRY AND ASSAYING.

CHAPTER XVII.

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ASSAYING AND ANALYSIS

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METALLURGY.

CHAPTER XVIII.

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Pulsifer, H. B.—*The Metallurgy of Lead During* 1914. [Reviews the question as applied to the social and technical tone as well as to advancements made].—Mg. & Eng. World Jan. 2 1915; p 15; 2 pp; 10c.

Spaulding, C. E.—*Pulp Curves.* [Is a curve with description for its use].—Mg. World May 22 1915; p 944; pp 1½; 10c.

Stutz, Ernest.—*The Scoria Process for the Manufacture of Fine Ore Briquettes and Flue-Dust Briquettes.* [Abst. from paper read before the A. I. M. E. Also contains data in tabulated form].—I. & C. Tr. Rev. April 9 1915; p 500; pp 1½*; 35c.

White, Charles H.—*Methods in Metallurgical Analysis.* [This describes the apparatus and methods used in analysis of the up-to-date metallurgical plant].—D. Van Nostrand Co. N. Y.; pp 356*; book, $2.50.

——— *Copper Metallurgy in* 1914. [Editorial].—Met. & Chem. Engg. Jan. 1915; p 5; 1 p; 35c.

——— *Great Improvements in Progress by Anaconda Co.*—Mg. Wld. Jan. 9 1915; p 94; 1 p; 10c.

——— *Mill and Smelter Construction in* 1914. [Reviews the many improvements that have been made throughout

the country].—Mg. & Eng. World Jan. 2 1915; p 17; 18 pp*; 10c.

——— *Notes on Modern Methods of Manufacture of Metallurgical Coke in Copper By-Product Ovens.* [Treats on the recovery of tar, ammonia and benzol]. S. Afr. Engg. April 1915· p 76; pp 1½*; 35c.

——— *Progress in Copper Metallurgy.* [Editorial].—M. & S. P. Jan. 2 1915; p 5; 1 p; 20c.

——— *Progress in Gold and Silver Metallurgy in* 1914. [Editorial].—Met. & Chem. Engg. Jan. 1915; p 3; 1½ pp; 35c.

——— *Status of Zinc Metallurgy in* 1914. [Editorial].—Met. & Chem. Engg. Jan. 1915; p 6; 1 p; 3c.

——— *The X-Ray in Metallurgical Research.* [Treats of its use in the examination of the interior of copper castings].—Iron Age March 4 1915; p 500; 1½ pp*; 30c.

POWER AND MACHINERY.*

CHAPTER XIX.

ELECTRICITY

In Mines and Mining

Allen, Andrews.—*The New (Coal) Mining Plant at Bicknell, Ind.*—Coal Age March 27 1915; p 530; 4¼ pp*; 20c.

Bartlett, C. O.—*The Cobasco System for Handling Material.* [Describes a system for elevating material such as the product of mines, quarries and rock-crushing plants, control systems, etc.].—Mg. World Feb. 20 1915; p 369; 1¾ p*; 10c.

Balliet, Letson.—*Discussing the Efficiency of Mine Lighting.*—Mg. World June 5 1915; p 1027; pp 2½*; 10c.

Bright, Graham.—*Determination of the Equipment for Mine Locomotives.* [After the weight of the locomotive has been determined the motors, control equipment, resistance and brake mechanism require careful attention].—Coal Age March 20 1915; p 490; 5 pp*; 20c.

Brown, Ray E.—*The Alternating Current Coal Hoist.* [Abst. from paper read March 15 1915 at A. I. E. E. and to be revised and reread on April 15, 1915].—Proc. Amer. Inst. Elect. Eng. April 1915; p 615; pp 8*; 35c.

Buck, C. A.—*The Tofó Iron Mines, Chile, in* 1914. [Treats of the ores, transportation and power equipment of these mines, now operated by the Bethlehem-Chile Iron Mines Co.].—E. & M. J. Jan. 16 1915; p 145; 1½ pp*; 25c.

Butler, J. R.—*A Kentucky Mining Success.* [Treats on the handling of the product at an up-to-date mine].—Coal Age May 8 1915; p 798; pp 2*; 20c.

Carpenter, C. B.—*Electric Shot Firing in Kansas.* [A method of firing throughout the mine with electricity].—Coll'y Eng. June 1915; p 596; pp 2½*; 30c.

Cooper, M. D.—*Electric Shotfiring in Bituminous Mines.*—Coal Age Feb. 6 1915; p 255; 1 p*; 20c.

Corlett, G. S.—*Colliery Electric Lighting.* [Describes and discusses the subject in general].—I. & C. Tr. Rev. May 7 1915; p 645; pp 2; 35c.

Cottrell, F. G.—*Problems in Smoke, Fume and Dust Abatement.*—Ann. Rep. Smithsonian Inst., 1913; 73 pp*.

DeWolfe, E. C.—*Electric Gathering Locomotives.* [Aside from economy considerations, the gathering locomotive is a physical necessity if large outputs of coal are to be handled. Old mines can be equipped with such locomotives as well as newer operations. These machines have a multitude of uses].—Coal Age March 6 1915; p 415; 3½ pp*; 20c.

Dunlop, R. R.—*The Electric Mine Locomotive and Its Motor Equipment.* [Treats on the haulage capacity of locomotives].—Coal Age June 26 1915; p 1097; pp 1½; 20c.

Edwards, Geo. E.—*A Review of Progress on the Lake Superior Iron Ranges.* [Treats of equipment and various mining operations at mines on the various ranges].—Mg. World March 6 1915; p 449; 10½ pp*; 10c.

Edwards, Geo. E.—*Some Electrical Installations in* 1914. [Briefly reviews some of the electrical installations made in the mines of the United States].—Mg. & Eng. World Jan. 2 1915; p 35; 7 pp*; 10c.

Evans, George D.—*E. E. White Coal Co. Mines.* [Describes the methods and equipment of some well managed coal mines in the New River, W. Va., field].—Colly. Engr. March 1915; p 401; 6⅛ pp*; 35c.

Foley, F. J.—*Electrification of the Small Mine.* [An actual instance where installation of electricity reduced the power cost per ton].—Coal Age April 3 1915; p 575; pp 2*; 20c.

Greenfield, R. C.—*Notable Hoisting Installations.* [Describes some radical departures in the design and operation of mine hoists. One of the plants is capable of handling 4000 tons of coal in 8 hours from a depth of more than 400 ft.].—Coal Age March 6 1915; p 421; 1½ p*; 20c.

*Note.—For drills, pumps, fans, haulage and winding engines, dredges, excavators, crushers, separators, conveyors, transportation, machinery, etc., see respectively "Drilling and Boring," "Pumping," "Ventilation" and other appropriate headings in "Mine and Mining," "Mill and Milling," and "Miscellaneous."

Gwinn, J. W.—*Underground Haulage in the Bunker Hill & Sullivan Mine, Idaho.* [Abst. from Trans. A. I. M. E.; electric-locomotive haulage is used].—Mg. Press March 13 1915; p 410.

Hafer, Claud. — *Southern Aluminum Plant of North Carolina.* [Treats of former operations, plans of the new company, contractors' plant, furnace plant, Bayer process to be used, buildings and equipment, etc.].—Mg. World Jan. 16 1915; p 131; 4¼ pp*; 10c.

Hay, Thomas Robson.—*Central Station Power in Coal-Mining Operations.* [Shows advantages of purchased power to coal companies, one being that it removes the burden of isolated plant operation].—Eng. Mag. March 1915; p 833; 16 pp*; 35c.

Henahen, T. R.—*Thirteenth Biennial Report of the Bureau of Mines of the State of Colorado for* 1913 *and* 1914.—Pp 228*.

Hobart, R. E.—*Electric Shaft Hoists Installed by the Lehigh Coal & Navigation Co.* [After a careful test of a steam mine hoist it was decided that if the manufacturer's guarantee be realized electric hoisting would be a paying proposition. An electric hoist built to exacting specifications was accordingly installed and has proved entirely satisfactory].—Coal Age March 6 1915; p 402; 5 pp*; 20c.

Holmes, Joseph A.—*Fourth Annual Report of the Bureau of Mines to the Secretary of the Interior, for the Fiscal Year Ended June* 30, 1914.—U. S. Bureau of Mines; pp 101.

Martin, Stuart H.—*Description of the General Layout of the Modderfontein B. Gold Mine, with Particular Reference to the Methods Adopted for the Transport of Ore Underground.*—S. Afr. Engg. May 1915; p 101; pp 2½*; 35c.

Norcross, F. S.—*The Mother Lode Blast.* [Describes in detail the way in which the holes are drilled and placed for the blast as well as taking up explosives used and firing the same with electricity].—E. & M. J. May 29 1915; p 931; pp 4½*; 25c.

Prehn, Martin.—*Coal Transportation in Eastern Kentucky Mines.* [An attempt to show how conservation and organization can effect big operating savings through the judicious selection and use of equipment. Roller-bearing wheels enabled a saving of more than 1 ct. per ton].—Coal Age March 6 1915; p 419; 1¾ p*; 20c.

Pratt, John I.—*What Is a Safe Voltage in Mines?* (Paper read before Coal Mg. Inst. of Am.).—Coal Tr. Bull. Jan. 1 1915; p 29; 1 p; 25c.

Pickles, V.—*The Rand's Largest Central Power Station.* [Abst. from description for S. Afr. Inst. Elect. Engrs. of the Rosherville plant of the Rand Mines Power Supply Co., Ltd., which has a total capacity of about 84,000 kw. It is both an electric generating and an air-compressing station].—Mg. Press Feb. 6 1915; p 225; 2 pp; 20c.

Revilla, Jose.—*La Fuerza Motriz en las Minas de Carbon.* [Describes the motive power as used in the coal mines of Spain].—Revista Minera March 8 1915; p 113; pp 1½; 35c.

Richards, R. S.—*Economy in Mine Haulage.* [Mules are now being supplanted by locomotives for transporting coal underground. Storage-battery machines in this service reduce the cost of coal moving about three-fifths].—Coal Age March 6 1915; p 413; 1 p*; 20c.

Rider, J. H.—*The Power Supply of the Central Mining-Rand Mines Group.* [Treats in detail on the electrical power plant and its equipment for that district].—Elect. Rev. May 7 1915; p 670; pp 1½*; May 14 1915; p 705; pp 1½; 70c; Colly. Guard. April 16 1915; p 806; pp 3*; 35c; Electrician April 23 1915; p 88; pp 3*; 35c; S. Afr. Engg. April 1915; p 85; pp 5*; 35c.

Rosenblatt, Girard B.—*Application of Electric Motors to Gold Dredges.* [Discusses the handling of tailing, and describes the digging end, belt vs. gear drive, motors for digging service, etc.].—M. & S. P. Jan. 2 1915; p 12; 4½ pp; 20c.

Rosenblatt, G. B.—*The New Electric Hoist of the North Butte Mining Co.*—S. L. Mg. Rev. April 30 1915; p 7; pp 3½*; 25c.

Shearer, David R.—*Electricity in Coal Mining.* [Treats on the theory of electricity but mostly on its application in coal mines].—McGraw-Hill Book Co., N. Y.; pp 84*; book, $1.50.

Smillie, Sheldon.—*Mine Tracks.* [Points out that mechanical mine haulage is in reality a miniature railroad system and should be treated as such. Bonding, ballast and other details are all essential to satisfactory operation].—Coal Age Jan. 30 1915; p 196; 1¼ p*; 20c.

Smith, H. W.—*Problems of an Electrically-Operated Coal Mine.* [Showing power losses in transmitting the current].—Coal Age May 8 1915; p 807; pp 2*; 20c.

Snyder, W. T.—*Direct-Current for Hoisting Equipment in Industrial Plants.* [Treats on hoists of short length only].—

A. I. E. E. Bull. May 1915; p 695; pp 16*; 35c.

Snyder, W. T. — *Electrically-Driven Hoist Controllers.* [Has drawings and curves].—I. & C. Tr. Rev. June 4 1915; p 782; pp 1⅞*; 35c.

Sparks, C. P.—*Electricity Applied to Mining.* [Abst. of paper read before the Inst. Elect. Eng. Feb. 25 1915].—Elect. Rev. March 26 1915; p 454; pp 3*; 35c.

Tupper, C. A.—*Progress at the Old Dominion Mine, Mill and Smelter.* [Treats on the equipment, methods and construction in the mill and smelter and the shafts and hoisting in the mine].—Mg. World June 19 1915; p 1105; pp 6*; 10c.

Wagner, E. B.—*Electric Mine Locomotives.* [Abst. from Employes' Mag. of Lehigh Valley Coal Co., briefly describing the essential features of construction of electric mine locomotives, and gives some suggestions on starting and stopping].—Mg. Press Jan. 23 1915; p 134; 500 w; 20c.

Walker, S. F. — *Electrically Driven British Longwall Coal Cutters.* [Describes in detail the method of transmitting alternating current to the machine and the kind of resistance employed in starting].—Coal Age Feb. 13 1915; p 285; 4 pp*; 20c.

Worden, E. P.—*Motor-Driven Duplex Pumps for Mine Service.* [Besides its general application, takes up their use in mines of northern Michigan].—Mg. World May 8 1915; p 855; pp 2*; 10c.

——— *A French Electric Mine Hoist.* [Treating equalization of power at different stages of the hoist].—Colly. Eng. April 1915; p 468; pp 3*; 35c.

——— *A Large Electric Hoist at Hamilton, Ontario.* [A description of the hoist at Hamilton Mt. park and its location].—Canadian Mg. Jnl. May 1 1915; p 284; pp 3*; 35c.

——— *A New Miners' Electric Lamp.* [Describes a new electric miners' lamp put out by General Electric Co.].—Mg. World Feb. 27 1915; p 421; 1 p*; 10c.

——— *Central Station Power in Coal Mine; from Westinghouse Electric Co.'s Bull.* 3902-A. [Treats on power costs].—The Coal Trade Bull. April 1 1915; p 47; pp 6; 25c.

——— *Eight-Ton Winding Gear for the East Rand Proprietary Mines.* [Gives a description and plan of the entire plant].—Engg. April 2 1915; p 375; pp 1*; 35c.

——— *Electric Lamps for Lighting Gaseous Places.* [Abst. from technical paper, U. S. Bureau of Mines].—Mg. World Jan. 23 1915; p 181; 200 w; 10c.

——— *Electric Signaling in Mines.* [Reviews the danger of electrical signaling].—Colly. Guard. April 23 1915; p 855; pp 2½*; 35c.

——— *Electric Winding at a Durham Colliery.* [Describes the electrical machinery and the plan of operation].—Colly. Guard. April 9 1915; p 751; pp 1*; 35c.

——— *Electricity in Mines.* [Report of H. M. Elect. Inspector of Mines; gives accidents caused by electrical currents underground].—Elect. Rev. April 2 1915; p 487; pp 2; 35c.

——— *Electricity in Nova Scotia Mine..* [Treats of electricity in coal mines only].—Can. Mg. Jnl. April 1 1915; p 210; pp 1; 35c.

——— *Individual Electric Lighting Plants for Steam Shovels.* [Describes how the Utah Copper Co. solved the problem of lighting for operating its steam shovels at night].—Mg. World Jan. 16 1915; p 135; 1¼ pp*; 10c.

——— *Largest Electric Winder in South Africa.* [Located at the South Rand shaft of the Crown Mines, Ltd.].—S. Afr. Engg. May 1915; p 97; pp 1*; 35c.

——— *Power Applications on the Rand.* [Discusses the central electric power and compressed air stations].—Engg. April 23 1915; p 466; pp 1½; 35c.

——— *Power Plant at Gillies Lake, Ontario.* [Describes the compressor plant of the Canadian Mining & Finance Co.].—Canadian Eng. June 10 1915; p 651; pp 1½*; 35c.

——— *Pump and Cutter of Electric Dredge.*—Engg. News June 3 1915; p 1079; pp ½*; 25c.

——— *Some Electrical Developments in Mining in* 1914. [From data furnished by the General Electric Co. treating of developments of electric mine locomotives, mine hoists and electric furnaces].—E. & M. J. Feb. 6 1915; p 277; 1¼ p*; 25c.

——— *Steam-Electric-Driven Dredge for the Philippines.* [Describes the dredge to be used in detail].—E. & M. J. May 22 1915; p 899; pp 1½*; 25c.

——— *Storage-Battery Locomotives in a Developing Mine.* [Treats of the use of storage-battery locomotives in the new mine of the Nokomis Coal Co., at Nokomis, Ill.].—Coal Age Jan. 16 1915; p 123; 500 w; 20c.

——— *Telephone or Signal Bells at Mines.* [Describes some systems in use].—Mg. World Feb. 27 1915; p 416; 500 w; 10c.

——— *The Power Supply of the Central Mining Rand Mines Group.* [De-

scribes the electrical power used in this district].—Elect. Rev. April 23 1915; p 585; pp 4*; 35c.

——— *The Storage-Battery Locomotive.* [Editorial discussing the use and economy of these locomotives for mine use].—Coal Age March 6 1915; p 430; 800 w; 20c.

——— *The Use of Compressed Air on the Rand.* [Tells of the electric compressors and the rock drills used].—Coll'y Guard. May 21 1915; p 1066; pp 1; 35c.

——— *Tramming Ore on the Main Levels of the Butte Mines.* [Gives notes on haulage in Butte mines where electric locomotives are used].—Mg. World Jan. 16 1915; p 130; 1 p*; 10c.

In Mills and Smelters

Altnéder, Franz.—*Uber die Elektrolytische Kupferraffination.* [The electrolytic refining of copper].—Metall & Erz May 8 1915; p 173; pp 6*; 50c.

Avery, Colby M.; Tupper, C. A.—*Recent Progress in the Design of Milling Plant.* [Reviews the progress made, particularly in the mining regions through which the writers recently traveled].—Mg. & Eng. World Jan. 2 1915; p 1; 5½ pp*; 10c.

Bradley, Linn.—*Practical Applications of Electrical Precipitation and Progress of the Research Corporation.* [Gives the practical working at Anaconda and other smelters].—Proc. Amer. Inst. Elect. Eng. April 1915; p 523; pp 41½*; 35c.

Johnson, J. E., Jr.—*Blast-Furnace Plant Auxiliaries and General Arrangement.* [Considers the water supply, pumps, electricity, compressed air, etc.].—Met. & Chem. Engg. June 1915; p 373; pp 5½*; 30c.

Keeney, Robert M.—*Electric Smelting in 1914.* [Reviews the installations and advancements made during the year].—M. & S. P. Jan. 2 1915; p 22; 5 pp; 20c.

Keeney, Robert M.—*Electric Smelting of Ferro-Alloys.* [Types of furnaces used in electric smelting illustrated with sketches].—I. & C. T. Rev. April 8 1915; p 717; pp 6*; 25c.

Keeney, Robert M.—*Electric Smelting of Ferro-Alloys.* [Details on the manufacturing of different iron alloys and steel].—Ir. Tr. Rev. April 15 1915; p 765; pp 4; 25c.

Keeney, R. M.—*Electric Smelting of Ferro-Silicon.* [Contains details of early experiments, reduction with carbon, description of plant and cost of manufacture].—I. Tr. Rev. April 29 1915; p 862; pp 6*; 25c.

Keeney, R. M.—*Electric Smelting of Ferro-Chrome.* [Reviews the history, theory, raw materials used, and cost of production in chromite smelting].—I. Tr. Rev. May 13 1915; p 972; pp 4; 35c.

Kranz, W. G.—*The Electric Furnace in the Foundry.* [Compares the electric furnace with the open-hearth as regards the finished steel product].—A. I. M. E. Bull. May 1915; p 927; pp 3½*; 35c.

Riggs, J. S.—*Steel Mill Controllers from the Operator's Standpoint.* [Dwells mostly on the full magnetic controller].—A. I. E. E. Bull. May 1915; p 715; pp 8*; 35c.

Simons, Theodore.—*The Concentrator of the Timber Butte Milling Co., Butte, Mont.* [Is a combination of tables and flotation with electric power].—Bull. A. I. M. E. June 1915; p 1295; pp 22*; 35c.

Simons, Theodore.—*Concentrator of the Timber Butte Milling Co.* [The crushing and concentration of ore containing five different minerals].—Mg. World June 5 1915; p 1030; pp 6*; 10c.

Hydro-Electric

Cox, J. B.—*Some Results of Butte, Anaconda & Pacific Railway Electrification.* [Abst. of article in General Electric Review].—E. & M. J. March 20 1915; p 529; 2 pp; 25c.

De Hart, J. M.—*New York & Honduras Rosario Mining Co.* [Gives costs and the general crushing and cyaniding process used].—Mg. World June 19 1915; p 1113; pp 2½*; 10c.

Dickinson, A.—*The Bombay Hydro-Electric Scheme.* [Abst. from paper read before Inst. of Elect. Engrs.]—Elect. April 30 1915; p 117; pp 2½*; 35c.

Edwards, Geo. E.—*A Review of Progress on the Lake Superior Iron Ranges.* [Treats of equipment and various mining operations at mines on the various ranges].—Mg. World March 6 1915; p 449; 10½ pp*; 10c.

Fernald, R. H.—*Gas Producers and Concentration of Power at Mines.* [Abst. of paper read before the Cleveland Eng. Soc. discussing a means of obtaining power from low-grade coals as cheaply as steam power from high-grade coals].—Colly. Engr. March 1915; p 415; 2⅛ pp; 35c.

Hafer, Claud. — *Southern Aluminum Plant of North Carolina.* [Treats of former operations, plans of the new company, contractors' plant, furnace plant, Bayer process to be used, buildings and equipment, etc.]. Mg. World Jan. 16 1915; p 131; 4¼ pp;* 10c.

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Lamb, Marc R.—*Hydro-Electric Plant at a Bolivian Tin Mine.* [Tells of the difficulties encountered in the construction of a power dam].—E. & M. J. Jan. 2 1915; p 7; 2½ pp*; 25c.

Lof, E. A.—*Generating Stations and Some Features of Their Design.* [Treats of electric generating stations operated by steam and water power].—Coal Age Feb. 6 1915; p 234; 11 pp*; 20c.

Ralston, O. C.; Gartside, A. E.—*Leaching a Zinc-Lime Ore with Acids.* [Describes tests made on leaching Utah zinc-lime ores in the Metallurgical Research laboratory of the University of Utah].—Met. & Chem. Eng. March 1915; p 151; 4½ pp* 35c.

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Smith, J. D. Audley.—*Leaching with Ammonia.* [Describes experiments made by the author along this line].—Mg. Mag. Feb. 1915; p 101; 1¼ pp; 50c.

Wilson, W.—*Hydro-Electric Power in New Zealand.* [The development of power plants in that country].—Engg. Mag. June 1915; p 336; pp 15½*; 35c.

Wright, G. W.—*Notes on Lake Margaret Hydro-Electric Power Scheme.*—Aust. Inst. of M. E. No. 17; p 31; pp 7; 50c.

——— *Bombay Hydro-Electric Scheme.* [Describes the equipment and layout].—Engg. Rev. May 15 1915; p 366; pp 4½*; 35c.

——— *Constructing a Hydro-Electric Plant.* [A large hydro-electric plant on the Mississippi river near Minneapolis].—Cement Era March 1915; p 44; pp 4*; 25c.

——— *Developments in a Steel Mill's Power Plant Equipment.* [Describes some of the recently installed equipment at the steel plant of the Youngstown Sheet & Tube Co., including centrifugal pumps, turbine blowers, water-treating system and bituminous gas producers].—Pract. Engr. Feb. 1 1915; p 153; 7 pp*; 25c.

——— *Hydro-Electric Development at Fountain Falls, Ontario.* [Dwells on the dam and machinery equipment].—Canadian Eng. June 10 1915; p 658; pp 2*; 35c.

——— *Improvements at the Reduction Works of the Anaconda Copper Co.* [Abst. from the Anode treating of improvements being made to the smelting, leaching and acid plants].—Mg. Press Feb. 27 1915; p 334; 1 p; 20c.

——— *Western Hydro-Electric Transmission Developments.* [Deals with the progress and possibilities of water power in the west, with description of plants now in operation and tables of cost, production, etc.].—Jnl. Elect. Power & Gas June 5 1915; p 441; pp 33*; 35c.

General

Burgess, G. K.; Kellberg, I. N.—*Electrical Resistance and Critical Ranges of Pure Iron.* [Is electrical data and descriptions on the subject from the laboratory].—U. S. Bur. Standards Bull. Vol. 11; p 457; pp 14; 25c.

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Lind, S. C.—*Practical Methods for the Determination of Radium.* [A detailed description of the electroscope used in the analysis].—Jnl. Ind'l & Engg. Chem'y May 1915; p 406; pp 4*; 60c.

Lof, E. A.—*Generating Stations and Some Features of Their Design.* [Treats of electric generating stations operated by steam and water power].—Coal Age Feb. 6 1915; p 234; 11 pp*; 20c.

Mallett, J. P.—*Electricity and Efficiency.* [Discusses the use of electricity in brick kilns and clay pits].—B. & C. Record June 1 1915; p 1034; pp 3*; 30c.

Mutscheller, A.—*The Action of Certain Colloids on Ions During Electrolysis.*—Met. & Chem. Engg. June 1915; p 353; pp 4*; 30c.

Myers, Romaine W.—*Pacific Coast Electrochemical Possibilities.* [Paper presented before San Francisco Sect. Am. Inst. Elect. Engrs., giving a brief summary of electrochemical installations on the Pacific Coast, including a description of plant of Electro-Alkaline Co., and discusses future possibilities, especially with regard to the fixation of atmospheric nitrogen].—Jnl. Elect., P. & Gas March 27 1915; p 243; 5¼ pp*; 35c.

Nesbit, A. F.—*The Theoretical and Experimental Consideration of Electrical Precipitation.* [Treats of the theory and some of its applications in metallurgy].—Proc. Amer. Inst. Elect. Eng. April 1915; p 507; pp 14½*; 35c.

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Randolph, John A.—*Electricity in Brick Making.* [An article in which an electrical expert points out the way to greater economy in brick making].—Brick & Clay Record April 20 1915; p 756; pp 2½*; 30c.

Scott, R. S.—*Electricity in the Lime Plant.* [Reviews the practicability of using electricity in lime plants].—Lime Mfg. Ass't. Bull. 8; pp 14*;

Skinner, Merrill E.—*Manufacturing and Testing of Electric Steel.* [Reprint from Wis. Engr., on the manufacture and testing of electric steel, or a particular grade of steel valuable because of certain physical and electro-magnetic properties in the manufacture of electrical apparatus].—Chem. Engr. Jan. 1915; p 28; 4¼ pp*; 35c.

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Stoltz, G. E.; Lum, W. O.—*Control of Direct-Current Hoists in Iron and Steel Mills.* [Is confined to a typical skip hoist entirely].—A. I. E. E. Bull. May 1915; p 723; pp 8*; 35c.

Stratton, S. W.—*Fees for Electric, Magnetic and Photometric Testing.* [Gives the methods of testing, instructions to applicants for test and the schedule of fees].—U. S. Bur. Standards, Circular No. 6; pp 27; 20c.

Strong, W. W.—*Electrical Precipitation of Dust.* [Abst. of paper read before A. I. E. E., discussing the Cottrell system's commercial applications and its relation to iron industry].—Iron Age Feb. 25 1915; p 4[illegible]; 1½ pp; 25c.

Swinner, C. E.; Chubb, L. W.—*[illegible] Percussive Welding.* [Abst. of paper read before Amer. Electrochem. Soc.].—Iron Age April 1915; p 5[illegible]; pp 1[illegible]*; 25c.

Sykes, Wilfred.—*Central-Station Power.* [Discusses factors affecting the cost of central-station electric power].—Coal Age Feb. 6 1915; p [illegible]; 2 pp; 25c.

Sykes, Wilfred; Bright, Graham.—*Meeting Loads for Central Stations.* [Abst. A. I. E. E.; gives the effect of varying loads in the electric power plant].—Colly. Eng. April 1915; p 477; pp 2½*; 35c.

Wedmore, E. B.—*Automatic Protective Switchgear for Alternating Current Systems.* (Paper read before Inst. of Elec. Engrs.).—Colly. Guard. London Dec. 18 1914; p 1321; 3⅓ pp*; 35c.

Yensen, T. D.—*Magnetic and Other Properties of Electrolytic Iron Melted in Vacuo.* [Treats on the physical properties as well as chemical].—Elect. April 30 1915; p 119; pp 2½*; 35c.

——— *Copper Wire Tables.* [Describes the physical and electrical properties of copper and contains tables of standard gages, properties and kinds of copper wire].—U. S. Bur. Stand., No. 31; pp 76*;

——— *Developments in a Steel Mills Power Plant Equipment.* [Describes some of the recently installed equipment at the steel plant of the Youngstown Sheet & Tube Co., including centrifugal pumps, turbine blowers, water-treating system and bituminous gas producers].—Pract. Engr. Feb. 1 1915; p 153; 7 pp*; 25c.

——— *Electrification of the Puget Sound Lines of the St. Paul Railroad.*—Mg. World Jan. 23 1915; p 182; 500 w; 10c.

——— *Heroult Furnaces for Foundry use.* [Details on three-phase furnace for melting crucible steel specially at Lebanon, Pa.].—I. Tr. Rev. May 13 1915; p 976; pp 3*; 25c.

——— *Motor Control in Steel Mills Discussed at Pittsburgh.* [An article read at the Industrial Power Meeting of A. I. E. E.].—Elect. Rev. & West. Elect. April 24 1915; p 777; pp 6; 35c.

——— *Motor Drive in European Cement Works.* [A general description].—Elect. Rev. & West. Elect. June 5 1915; p 1050; pp 2*; 30c.

——— *Power Supply on the Rand.* [Abst. S. Af. Inst. of Elec. Engrs.].—Elect. May 21 1915; p 231; pp 3½*; 35c.

——— *Proposed National Electrical Safety Code.* [Submitted for discussion, not adoption].—Circular No. 54 U. S. Bur. Standards; pp 137.

——— *The Electric Steel Industry's Present Status.* [A review of progress since 1910].—Iron Age Jan. 7 1915; p 94; 4¼ pp; 30c.

——— *The Mechanical World Electrical Pocket Book and Diary.* [Gives general information, curves, formulae and tables relating to motors, dynamos, wiring, lighting, etc.].—Norman Remington Co., Baltimore, Md.; pp 240*; book, 50c.

COMBUSTION ENGINES

Abell, A. J.—*The Manufacture of the Diesel Engine.* [Gives some of the production processes and the plant of the Busch-Sulzer Bros. Diesel Engine Co., St. Louis].—Iron Age Jan. 7 1915; p 57; 5½ pp*; 30c.

Finkle, F. C.—*Discussion on the Diesel Engine.* [From a discussion on Prof. W. A. Adams' paper before Los Angeles meeting of Am. Soc. Elect. Engrs. Particular emphasis is laid upon its disadvantages under a poor load factor as compared with the steam turbine].—Jnl. Elect., P. & Gas. March 6 1915; p 192; 2¼ pp; 35c.

Garrett, E. A.—*Noteworthy Progress of the Diesel Engine.*—Mg. World March 20 1915; p 554; 1¼ p*; 10c.

Gibson, A. H.—*The Distribution of Heat in the Cylinder of a Gas Engine.* [Paper read before the Inst. of Mech. Engrs.].—Engg. May 21 1915; p 585; pp 3½*; 35c; I. & C. Tr. Rev. May 21 1915; p 713; pp 1½*; 35c.

Lonsdale, T. R.—*Gas Engines at Malton Collieries, England.* [Nat'l Ass'n of Colliery Mangrs.' paper].—I. & C. Tr. Rev. May 28, 1915; p 750; pp 1⅓*; 35c.

McGwire, Chas. H.—*The Diesel Engine.* [Paper presented at meeting of Architects' & Engrs.' Asso. Los Angeles, giving detailed information regarding the capacities and economies of the Diesel engine, and an account of the fuel adapted for its use].—Jnl. Elect., P. & Gas March 13 1915; p 210; 2 pp; 35c.

Walker, Sydney F.—*The Gas Turbine.* [A German invention using internal combustion].—Electrician May 28 1915; p 282; pp 1; 35c.

West, Arthur. — *Modern Gas-Power Blower Stations.* [On the use of gas engines as power for the air blast of melting furnaces].—Bull. A. I. M. E. June 1915; p 1205; pp 9*; 35c.

STEAM AND STEAM ENGINES

Allen, Andrews.—*The New (Coal) Mining Plant at Bicknell, Ind.*—Coal Age March 27 1915; p 530; 4¼ pp*; 20c.

Ball, S. H.; Shaler, M. K.—*Mining in the Belgian Congo in* 1914.—Mg. Press March 13 1915; p 405; 3¾ pp*; 20c.

Beyer, H. E.—*The How and Why of the Condenser.* [Describes the underlying principles entering into the theory of economical condensation of steam and vapor by means of the jet condenser].—Coal Age Feb. 6 1915; p 245; 2¼ pp*; 20c.

Duncan, Lindsay.—*Reverberatory Waste-Heat Boilers.* [Presents records of results with waste-heat boilers at the Steptoe smelting works, Nevada, as an indication of the returns which may reasonably be expected from an investment of this sort].—E. & M. J. Jan. 16 1915; p 152; 1¾ pp*; 25c.

Edmonds, L. E.—*Economic Operation of Steam Plants and Boilers.* [Treats on the saving attended by the employ of competent men].—Nat. Lime Mfg. Assn. Bull. 10; pp 6.

Ellis, Carleton. — *Flameless Combustion.* [Reprint from Trans. A. I. M. E. describing this process of burning gaseous fuel and discussing applications].—Ann. Rep. Smithsonian Inst. 1913; p 693; 16 pp*.

Kratz, A. P.—*A Study of Boiler Losses.* [A theoretical treatise of the above].—Univ. Ill. Bull. 78; pp 72.

Kreisinger, Henry.—*Hand Firing Soft Coal Under Power-Plant Boilers.* [Treats on the methods of firing with soft coal and illustrates the same with diagrams].—U. S. Bur. Mines, Tech. Paper No. 80; pp 83*.

Lof, E. A.—*Generating Stations and Some Features of Their Design.* [Treats of electric generating stations operated by steam and water power].—Coal Age Feb. 6 1915; p 234; 11 pp*; 20c.

Lotz, Alfred.—*The Stoker in Coal-Mine Power Plants.* [Treats of the relation of the mechanical stoker to the prevention of fuel waste].—Coal Age Feb. 6 1915; p 248; 2 pp*; 20c.

Monnett, Osborn.—*Handfiring in Waste-Heat Boilers.* [Abst. from Power, dealing particularly with making waste-heat boiler installations capable of handfiring].—E. & M. J. Feb. 20 1915; p 368; 1¾ p*; 25c.

Peter, F.—*The Generation of Steam by Waste Heat from Open-Hearth Furnaces.* [Abst. of paper read before A. I. M. E.].

—Iron & C. Trades Rev. Jan. 15 1915; p 79; 1 p*; 35c.

Pickles, V.—*The Rand's Largest Central Power Station.* [Abst. from description for S. Afr. Inst. Elec. Engrs. of the Rosherville plant of the Rand Mines Power Supply Co., Ltd., which has a total capacity of about 84,000 kw. It is both an electric generating and an air-compressing station].—Mg. Press Feb. 6 1915; p 225; 2 pp; 20c.

Rickard, T. A.—*Persistence of Ore with Depth.*—Jnl. Chem., Met. & Mg. Soc. of S. Afr. Dec. 1914, Jan. 1915; p 109; 24 pp*; $1.

Rogers, G. Sherburne.—*The Phosphate Deposits of South Carolina.* [Abst. from Bull. 580-J U. S. Geol. Surv., dealing with the occurrence, characteristics and treatment of phosphate in S. Carolina].—Am. Fert. Jan. 23 1915; p 37; 12¼ pp*; 25c.

Rush, R. M.—*Small Steam Turbines at Coal-Mine Power Plants.* [Describes the advantages of the turbine].—Coal Age May 29 1915; p 928; pp 2¼*; 20c.

Trautschold, Reginald.—*The Value of Anthracite Steam Coals.* [A study of some economic considerations in the use of the anthracite steam coals].—Coal Age Jan. 2 1915; p 8; 2½ pp; 20c.

——— *Developments in a Steel Mill's Power Plant Equipment.* [Describes some of the recently installed equipment at the steel plant of the Youngstown Sheet & Tube Co., including centrifugal pumps, turbine blowers, water-treating system and bituminous gas producers].—Pract. Engr. Feb. 1 1915; p 153; 7 pp*; 25c.

——— *History of the Tom Reed Gold Mine.*—Oil & Mg. Bull. Feb. 1915; p 56; 3½ pp*; 25c.

——— *Lighting Plants for Steam Shovels.* [Describes the use of Westinghouse Electric & Mfg. Co. general utility turbogenerator outfits for furnishing electric power for arc and incandescent lamps on the steam shovels of the Utah Copper Co.].—S. L. Mg. Rev. Jan. 30 1915; p 11; 700 w*; 25c.

——— *New Milling Plant of the Daly-West Mining Co.* [Treats of the equipment and method of treatment, concentration, sizing, hoisting and air compression].—S. L. Mg. Rev. Feb. 15 1915; p 9; 2½ pp*; 25c.

——— *New Storage Battery.* [Describes the Gardiner Bus-Bar storage batteries manufactured by the Gardiner Storage Battery Co.].—Mg. World Feb. 20 1915; p 373; 500 w*; 10c.

——— *The Casapalca District, Peru.* [Treats of milling, power and transport operations in the district].—E. & M. J. Feb. 20 1915; p 357; 500 w; 25c.

COMPRESSED AIR

Forbes, C. R.—*Mining Laboratory of the Missouri School of Mines.* [A feature of the laboratory work is the practical work of drilling and blasting at mine plant; other laboratory work includes compressed air, mine rescue and first aid].—E. & M. J. Feb. 13 1915; p 309; 3 pp*; 25c.

Holford, W. G.—*The Mining Problems of the Eastern Rand Area I.* [Paper read before the Inst. M. & M. on compressors ventilation, haulage, etc.].—S. Afr. Mg. Jnl. April 24 1915; p 1801; pp 1½; May 1915; p 112; pp 2; 75c.

Johnson, J. E., Jr.—*Blast-Furnace Plant Auxiliaries and General Arrangement.* [Considers the water supply, pumps, electricity, compressed air, etc.].—Met. & Chem. Engg. June 1915; p 373; pp 6½*; 30c.

Lawrence, Beardsley. — *Water-Pipe Tunnel, Metropolitan Water-Works, Boston, Mass.* [Deals with the driving of a tunnel with compressed air].—Engg. News June 10 1915; p 1116; pp 6*; 25c.

Phelps, Chas. C.—*Breaking Up Rock for Steam Shovels.* [Describes the general practice and gives some of the costs].—Comp. Air May 1915; p 7595; pp 2*; 20c.

Phelps, C. C.—*Driving Gangways in Anthracite Mines, Pennsylvania, by Improved Methods.* [Discusses the use of Jackhamer drills and portable electric compressors].—May 29 1915; p 926; pp 1½*; 20c.

Pickles, V.—*The Rand's Largest Central Power Station.* [Abst. from description for S. Afr. Inst. Elect. Engrs. of the Rosherville plant of the Rand Mines Power Supply Co., Ltd., which has a total capacity of about 84,000 kw. It is both an electric generating and an air-compressing station].—Mg. Press Feb. 6 1915; p 225; 2 pp; 20c.

Richards, Frank.—*Return-Pipe Compressed Air Practice.*—Comp. Air Mag. March 1915; p 7529; pp 3*; 25c.

Rider, J. H.—*The Power Supply of the Central Mining-Rand Mines Group.* [Abst. of paper read before the Inst. Elect. Eng.]. Electrician April 23 1915; p 88; pp 3*; 35c; S. Afr. Engg. May 1915; p 106; pp 6*; 35c.

Tillson, Benj. F.—*Testing Hammer Drills for Mine Service-Metering the Air.* [Abst. from paper read before A.

I. M. E.].—Comp. Air March 1915; p 7539; pp 2*; 25c.

Watts, A. C.—*Driving Rock Tunnels at Utah Coal Mine.* [Treats of drilling, compressed-air supply, ventilation, labor, costs, etc.].—Coal Age Feb. 13 1915; p 278; 3½ pp*; 20c.

West, Arthur. — *Modern Gas-Power Blower Stations.* [On the use of gas engines as power for the air blast of melting furnaces].—Bull. A. I. M. E. June 1915; p 1205; pp 9*; 35c.

Wikander, Ragnar.—*A New Volume Regulator for Air Compressors.* [A description of the appliance].—I. & C. Tr. Rev. April 30 1915; p 604; pp 1*; 35c.

Wood, A. B.—*Compressed Air Meters for Use in Mining Operations.* [A description of a meter for measuring the air used by drills, pumps, engines, etc.].—Mg. World April 24 1915; p 775; pp 1*; 10c.

——— *A New Rotary Air Compressor.* [Describes a new rotary air compressor manufactured by the Wernicke-Hatcher Pump Co.—Coal Age Jan. 30 1915; p 199; 1 p*; 20c.

——— *A Small Portable Air Compressor.* [Describes a small gasoline-driven air compressor developed by the Ingersoll-Rand Co.].—Mg. World Feb. 13 1915; p 335; 500 w*; 10c.

——— *A Turbine Driven Reciprocating Air Compressor.*—I. & C. Tr. Rev. April 23, 1915; p 570; pp 1*; 35c.

——— *Compressed Air Locomotive Built for the Victoria Copper Mining Co.* —Mg. World Jan. 30 1915; p 219; 450 w; 10c.

——— *Hydro-Air Compressor Installation in Alaska.*—Mg. & Eng. World Jan. 2 1915; p 47; 600 w*; 10c.

——— *New Milling Plant of the Daly-West Mining Co.* [Treats of the equipment and method of treatment, concentration, sizing, hoisting and air compression].—S. L. Mg. Rev. Feb. 15 1915; p 9; 2½ pp*; 25c.

——— *Power Applications on the Rand.* [Discusses the central electric power and compressed air stations].—Engg. April 25 1915; p 466; pp 1½; 35c.

——— *Power Plant at Gillies Lake, Ontario.* [Describes the compressor plant of the Canadian Mining & Finance Co.].—Canadian Eng. June 10 1915; p 651; pp 1½*; 35c.

——— *Tests of a Gas-Engine-Driven Air Compressor.*—Comp. Air March 1915; p 7512; pp 1; 25c.

——— *The Use of Compressed Air on the Rand.* [Tells of the electric compressors and the rock drills used].—Coll'y Guard. May 21 1915; p 1066; pp 1; 35c.

GAS PRODUCERS; PRODUCER GAS

Hubert, H.—*Recent Progress in the Design of Large Blast Furnace Gas Engines with Special Reference to Belgian Practice.* [Describes the engines in detail and is accompanied with drawings].—I. & C. Tr. Rev. May 14 1915; p 682; pp 3½*; 35c.

Lymn, A. H.—*Gas Producers with By-Product Recovery.* [Am. Soc. of Mech. Engrs.].—I. & C. Tr. Rev. May 28 1915; p 743; pp 2½*; 35c.

Tupper, C. A.—*Filtering Producer Gas.* [Treats of removing sulphur from producer gas by passing through iron oxide filters].—Iron Age Feb. 25 1915; p 455; 1¼; 30c.

——— *The Morgan Gas Producer Machine.* [A description of the machine and its operation].—Iron Age May 27 1915; p 1161; pp 2½*; 30c.

MISCELLANEOUS POWER AND MACHINERY

Barbour, Percy E.—*The Uwarra Mill.* [Criticising statements made by Andrew Walz in a communication in Mg. Press of Dec. 12 1914].—Mg. Press Feb. 20 1915; p 302; 500 w; 20c.

Brower, C. L.—*Waste Heat Boilers at Chrome, N. J.* [Consists of drawings, descriptions and curves].—E. & M. J. May 22 1915; p 892; pp 2½*; 25c.

Buck, C. A.—*The Tofó Iron Mines, Chile, in* 1914. [Treats of the ores, transportation and power equipment of these mines, now operated by the Bethlehem-Chile Iron Mines Co.].—E. & M. J. Jan. 16 1915; p 145; 1½ pp*; 25c.

Edmonds, L. E.—*Economic Operation of Steam Plants and Boilers.* [Treats on the saving attained by the employment of competent men].—Nat. Lime Assn. Bull. 10; pp 6.

Edwards, Geo. E.—*Pipe-Threading Machines for Mine Service.* [A description of pipe threading machines in use in Michigan copper country].—Mg. World May 29 1915; p 989; pp 2*; 10c.

Hay, Thomas Robson.—*Central-Station Power in Coal-Mining Operations.* [Shows advantages of purchased power to coal companies, one being that it removes the burden of isolated plant operation].—Eng. Mag. March 1915; p 833; 16 pp*; 35c.

Hielscher, E.—*Einkauf von Schmierölen.* [Purchase of lubricating oils].—Tonindustrie-Ztg. Dec. 3 1914; p 1848; 600 w; 35c.

Holbrook, H. L.—*Wood as a Fuel for Mine Power Plants.* [Tells of costs, different kinds of wood used, and describes types of wood grates].—E. & M. J. April 10 1915; p 645; pp 2½*; 25c.

Holford, W. G.—*The Mining Problems of the Eastern Rand Area—IV.* [Treats on the headframe structure, power plant and pumping stations].—S. Afr. Mg. Jnl. April 17 1915; p 163; pp 1; 35c.

Johnson, J. F.—*Modern Power Plants in the Iron Industry.* [Is a general discussion on power plants].—Penn. State Mg. Quar'ly April 1915; p 93; pp 17*; 35c.

Lamb, Mark R.—*West Coast Business.* [Discusses business conditions, influences and indications in the west-coast countries of South America].—E. & M. J. March 6 1915; p 433; 5 pp*; 25c.

Lof, E. A.—*Generating Stations and Some Features of Their Design.* [Treats of electric generating stations operated by steam and water power].—Coal Age Feb. 6 1915; p 234; 11 pp*; 20c.

Lotz, Alfred.—*The Stoker in Coal-Mine Power Plants.* [Treats of the relation of the mechanical stoker to the prevention of fuel waste].—Coal Age Feb. 6 1915; p 248; 2 pp*; 20c.

Marsh, T. A.—*The Successful Use of the Chain Grate Stoker.* [This describes a stoker which will handle ash coking coal].—Coal Age April 17 1915; p 673; pp 2½*; 20c.

McConnell, E. B.—*Successful Use of Refuse Coal.* [The use of shaking grates to dispose of bone coal].—Coal Age June 12 1915; p 1019; pp 1*; 20c.

Megraw, Herbert A.—*Labor and Power Used in Cyanide Mills.* [Discusses the influence of kind and quality of labor, plant design, topography, grinding in Chilean mills, power used, etc.].—E. & M. J. Feb. 13 1915; p 312; 3 pp; 25c.

Merchant, R. C.—*Lubricating Oil Test.* [Determining the viscosity].—Coll'y Eng. June 1915; p 615; pp 2; 30c.

Myers, David Moffat. — *Preventing Losses in Factory Power Plants.* [Treats on efficiency in the power plant, especially the boiler-room].—Eng. Mag. Co., N. Y.; pp 560*; book, $3.00.

Pickles, V.—*The Rand's Largest Central Power Station.* [Abst. from description for S. Afr. Inst. Elec. Engrs. of the Rosherville plant of the Rand Mines Power Supply Co., Ltd., which has a total capacity of about 84,000 kw. It is both an electric generating and an air-compressing station].—Mg. Press Feb. 6 1915; p 225; 2 pp; 20c.

Rider, J. H.—*The Power Supply of the Central Mining Rand Mines Group.* [Read before I. of E. E.].—S. Afr. Elec. April 1915; p 85; pp 5*; 35c.

Shapira, Samuel.—*Magnetic-Concentration Mill at Mt. Hope, N. J.* [Describes the mill of the Empire Steel & Iron Co., Catasauqua, Pa., and equipped to concentrate northern New Jersey iron ores. Ball and Norton magnetic-separating machines of the belt, drum and pulley types are used, and finished concentrates, middlings for retreatment and tailings are made].—E. & M. J. March 27 1915; p 559; 6¾ pp*; 25c.

Springer, J. F.—*Sydney, Cape Breton, Coal Fields, Nova Scotia.* [Reviews the field, its production, operations, transportation, etc.]. Coll'y Eng. June 1915; p 581; pp 4*; 30c.

Sykes, Wilfred.—*Central-Station Power.* [Discusses factors affecting the cost of central-station electric power].—Coal Age Feb. 6 1915; p 253; 2 pp; 20c.

Vail, Richard H.—*The Copper Queen Smelting Works.* [Description of the important copper-smelting works of the Phelps-Dodge interests at Douglas, Ariz.; upright converters, McDougal roasters, and reverberatory furnaces have been added within the last three years].—E. & M. J. Jan. 2 1915; p 1; 6 pp*; 25c.

Wedgewood, E. A.—*Conservation of Western Waterpower Resources.* [Address delivered before Am. Mg. Congress, Phoenix, Ariz.].—Mg. Sci. Jan. 1915; p 25; 4¼ pp*; 35c.

Williams, Gardner F.—*South African Diamond Development Problems.* [Reviews various power problems, lighting, ventilation, mine temperatures, etc.].—Mg. World March 27 1915; p 587; 5½ pp*; 10c.

——— *A Practical Machine for the Dredge and Dragline Contractor.* [Outlines the uses to which the Evinrude motor can be adapted].—Mg. Wld. Jan. 9 1915; p 92; 1¾ pp*; 10c.

——— *Conservation in Thermic Metallurgy.* [Editorial discussing the utilization of blast-furnace slags, gases and fume].—Mg. World March 6 1915; p 470; 350 w; 10c.

——— *Driving a Hoist by Hydraulic Turbine.*—Mg. World June 12 1915; p 1078; pp 1*; 10c.

——— *Electric Signaling in Mines.* [Reviews the danger of electrical signaling].—Colly. Guard. April 23 1915; p 855; pp 2½*; 35c.

——— *Motor Drive in European Cement Works.* [A general description].—

Elect. Rev. & West. Elect. June 5 1915; p 1050; pp 2*; 30c.

——— *Notes on the Iron and Steel Plant.* [Describes and gives drawings of various steel plant machinery].—I. & C. T. Rev. March 26 1915; p 440; pp 2*; 35c.

——— *The Mechanical World Pocket Book and Diary for* 1915. [Gives general information, curves, formulae and tables relating to the power plant and machine shop].—Norman Remington Co., Baltimore, Md.; pp 330*; book, 50c.

——— *The Power Supply of the Central Mining Rand Mines Group.* [Describes the electrical power used in this district].—Elect. Rev. April 23 1915; p 585; pp 4*; 35c.

——— *The Silver King Consolidated Mining Company.* [Treats of the history of the mine, the ore deposits, surface improvements, etc.].—S. L. Mg. Rev. Jan. 30 1915; p 7; 3 pp*; 25c.

——— *The Wear of Cylinders Due to Various Causes.*—Mg. World March 27 1915; p 598; 400 w; 10c.

PART III.

MISCELLANEOUS.*

CHAPTER XX.

MISCELLANEOUS COSTS

Allen, R. H.—*Operating Costs of a Small Mexican Mine.* [Is a complete itemized cost sheet with explanation].—E. & M. J. June 26 1915; p 1122; pp 2½; 25c.

Balliet, Letson.—*Mine Efficiency Suggestions: The Cost of Building a Dump.* [Treats on the subject from an efficiency standpoint and gives costs in various cases].—Mg. World June 26 1915; p 1151; pp 2¾; 10c.

Barr, James A.—*Tennessee Phosphate Practice.* [Reviews the mining of, geology, prospecting costs and methods of manufacture; paper read before the A. I. M. E.].—Chem. Eng. June 1915; p 230; pp 5½; 35c.

Carpenter, Jay A.—*Danish Tube-Mill Pebbles and Substitutes.* [Treats of the costs of Danish and French pebbles, steel balls, artificially rounded flints, quantity of pebbles required, etc.].—Mg. Press Jan. 23 1915; p 139; 3¼ pp; 20c.

Clawson, R. R.—*Messhouse Management at the Arrowrock Dam, Idaho.* [Has a detailed description accompanied with costs].—Engg. News June 24 1915; p 1201; pp 3*; 25c.

Cox, J. B.—*Some Results of Butte, Anaconda & Pacific Railway Electrification.* [Abst. of article in General Electric Review].—E. & M. J. March 20 1915; p 529; 2 pp; 25c.

Cushman, Allerton S.; Coggeshall, George W.—*Feldspar as a Possible Source of American Potash.* [Abst. of paper read before Am. Inst. Chem. Engrs., present the results of investigations on the making available of this source of potash, with a discussion of costs].—Met. & Chem. Eng. Feb. 1915; p 99; 6 pp; 35c; Jnl. Ind. & Eng. Chem. Feb. 1915; p 115; 5½ pp; 65c; Chem. Engr. Jan. 1915; p 4; 7½ pp; 35c.

Duncan, Lindsay.—*Recuperators; Waste-Heat Boilers.* [Presents figures of results with waste-heat boilers at the Steptoe smelting works, Nevada, as an indication of the returns which may reasonably be expected from an investment of this sort].—E. & M. J. Jan. 16 1915; p 152; 1¼ pp*; 25c.

Eddy, Lewis H.—*Comparative Hydraulic Mining Methods.* [Compares practice at Lorenz and Union Hill placer mines, Cal., giving cost of flumes and a general comparison].—E. & M. J. March 13 1915; p 481; 2½ pp*; 25c.

Ferguson, Wm. B.—*The Art of Estimating the Cost of Work.* [Treats on the systematizing of working operations so that a more accurate cost of each can be had and thus a more accurate estimate].—Engg. Mag., N. Y.; pp 97; book, $1.00.

Hobart, R. E.—*Electric Shaft Hoists Installed by the Lehigh Coal & Navigation Co.* [After a careful test of a steam mine hoist it was decided that if the manufacturer's guarantee could be realized electric hoisting would be a paying proposition. An electric hoist built to exacting specifications was accordingly installed and has proved entirely satisfactory].—Coal Age March 6 1915; p 402; 5 pp*; 20c.

Jewell, Wm. R.—*Factors in the Cost of Oil Production.* [Gives data on the cost of motive power and labor].—Mine Quarry & Derrick, March 31 1915; p 142; pp 3; 30c.

Jones, C. C.—*Los Angeles as an Iron and Steel Center.* [Treats on the available ore, its quality, transportation facilities, etc.].—Mg. & Oil Bull. May 1915; p 132; pp 6; 25c.

Payne, James H.—*Nodulizing in Copper Metallurgy.* [Describes results of experiments].—E. & M. J. Feb. 6 1915; p 272; 2 pp; 25c.

Prehn, Martin.—*Coal Transportation in*

*Includes Miscellaneous Costs; Testing; Waste Disposition; Metallography; Law, Legislation and Taxation; Conservation; Government Ownership; Financial and Business Organization; Educational; Schools and Societies; General Miscellany.

Eastern Kentucky Mines. [An attempt to show how conservation and organization can effect big operating savings through the judicious selection and use of equipment. Roller-bearing wheels enabled a saving of more than 1 ct. per ton].—Coal Age March 6 1915; p 419; 1¾ p*; 20c.

Richards, R. S.—*Economy in Mine Haulage.* [Mules are now being supplanted by locomotives for transporting coal underground. Storage-battery machines in this service reduce the cost of coal moving about three-fifths].—Coal Age March 6 1915; p 413; 1 p*; 20c.

Scott, Ernest Kilburn.—*The Manufacture of Nitrates from the Atmosphere.* [Reprint from Royal Soc. Arts describing the methods for the commercial electrochemical fixation of atmospheric nitrogen].—Ann. Rep. Smithsonian Inst. 1913; p 359; 30 pp*.

Steele, Heath. — *Cost and Efficiency.* [Treats on the recording of costs so as to be of value in future estimating].—M. & S. P. May 8 1915; p 718; pp 3*; 20c.

Summers, Leland L.—*Fixation of Atmospheric Nitrogen.* [Paper presented before Am. Inst. Elect. Engrs.].—Am. Fert. March 20 1915; p 41; 11¼ pp; 30c.

Sykes, Wilfred—*Central-Station Power.* [Discusses factors affecting the cost of central-station electric power].—Coal Age Feb. 6 1915; p 253; 2 pp; 20c.

Thornhill, E. B.—*Wet Method of Mercury Extraction.* [The sulphide of mercury is dissolved with alkali sulphide and then reprecipitated].—M. & S. P. June 5 1915; p 873; pp 1½; 20c.

——— *Centrifugal Mine Pumps on the Rand.* [Contains costs and tests made on the same; paper read before the S. Afr. Inst. of Mining Engineers].—E. & M. J. June 26 1915; p 1115; pp 1½*; 25c.

——— *Development Costs Per Foot.* [Gives items of development costs at the Montgomery mine, N. C.].—E. & M. J. March 13 1915; p 495; 400 w; 25c.

——— *Electric Pig Iron in Norway.* [A new type of furnace using coke and replacing the electric furnace both of which are described giving costs].—Iron Age May 20 1915; p 1120; pp 1; 30c.

——— *Gasoline Mine Haulage as Compared with Mule Haulage.* [Comparison of costs of coal transportation with mules and with a gasoline locomotive showed a difference in favor of mechanical haulage of 19.17 cts. per ton mile. The yearly saving effected is estimated as $3372, while the output was materially increased].—Coal Age March 6 1915; p 412; 1¼ p*; 20c.

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Authors' Index

A

Abbott, Robert R.....48, 50
Abele, Charles A.....
24, 28, 51, 81, 82, 90, 93, 94, 100, 104, 144
Abell, A. J.....188
Adams, Frank D.....
.....74, 77, 83, 84, 91, 160, 196, 201
Adams, L. D.....30, 125, 132, 151
Adams, H. C.....72
Adams, Maxwell.....169
Addicks, Lawrence.....31,
36, 43, 160, 168, 171, 173, 177, 178, 179, 180
Aiken, Warren.....178
Albrecht, ——.....101, 201
Alexander, C. M.....82, 88
Allan, F. L.....1, 16, 27
Allen, Andrews..72, 112, 132, 182, 188, 204
Allen, A. W.....20, 151, 158, 164
Allen, G. L.....178
Allen, R. H.....140, 144, 160, 193
Altnéder, Franz.....31, 169, 185
Alzugaray, Baxeres.....82, 164
Anderson, A. M.....137, 139
Anderson, A. R.....71, 131
Anderson, Olaf.....13, 66, 89
Andros, S. O...68, 72, 111, 116, 117, 119, 132
Annes, E. C.....1, 22, 35, 77
Anrep, A. V.....1, 84, 164
Appel, H. A.....117
Appleby, W. R.....1, 47, 125, 154
Archbald, Hugh.....132
Argall, P. Henry.....20, 161, 202
Armstrong, G. W.....50, 56, 62
Arentz, S. S.....43, 48, 170, 173, 179
Arndt, K.....31, 50, 56, 101, 169
Arnold, J. O.....50, 63
Arthur, E. P.....115, 116
Ashworth, James.....74, 137
Aston, James.....54, 164
Atwood, Wallace.....1
Aubury, L. E.....125, 204
Auchy, George.....56
Avery, Colby M...114, 151, 152, 158, 178, 185
Ayers, J. G., Jr.....54, 194, 198

B

Baak, B.....11, 107
Bacon, R. E.....84, 87
Bahney, L. W.....20, 26, 158, 166
Ball, L. C.....1, 16, 57, 125, 126, 144, 151
Ball, S. H.....1, 13, 16, 30,
35, 46, 61, 63, 83, 84, 99, 140, 144, 171, 188
Baldwin, A. A.....112, 114
Balliet, Letson.....
.....108, 113, 116, 119, 125, 182, 193
Ballivian, Adolfo.....89
Balls, A. K.....31, 42, 97, 169
.....1, 125
Bancroft, G. J.....16, 25, 202
Banks, C. A.....190
Barbour, P. E..20, 132, 135, 152, 158, 190
Barlow, A. E.....1, 13, 99, 104, 125, 144
Barnett, V. H.....1, 86, 88, 91
Barnitzke, J. E.....16, 108, 125
Barr, James A.....
.....1, 13, 51, 56, 106, 125, 154, 178, 193
.....1
Barrell, Joseph.....73
Bart, J. G.....119, 182
Bartlett, C. O.....107, 126
Barvik, H.....
Bastin, Edson S.....1, 40, 84, 94, 100, 144

Bauer, Julius.....1,
Baumann, L. P.....
Baxter, C. H.....
Bayley, W. S.....
Beard, J. T.....
Beaver, W. A.....
Beckmann, Ernst.....
Bedlow, R. H.....
Beebly, A. L.....
Bemis, G. T.....
Ben, G. G.....
Bell, Robert H.....
Belsler, Louis V.....
Benedict, C. H.....
Benito, Fernando.....
Berggreen, P. E.....
Bergh, S. V.....
Beringer, J. J.....
Berle, A. A.....
Bernstein, M. W.....
Berrien, C. L.....
Berthault, F.....
Bertsch, A.....
Bevan, T. H.....
Beyer, H. E.....
Billyard, J. R.....
Birkinbine, John.....
Black, James.....114
Blackner, L. A.....
Blackwelder, E.....
Blatchley, R. S.....
Bleecker, W. F.....
Bleloch, W. E.....
Blum, Theodore.....
Blythe, W. E.....
Boalich, E. S.....
57, 65, 66, 81, 84, 90, 91, 95, 101, 104, 144
Bochum, P. K.....
Boero, Joseph.....
Bohm, O. H.....
Boise, C. W.....
.....2, 99, 106, 121, 132, 144,
Bolin, G. H.....
Bonella, Edmund.....
Bonine, C. A.....
Borrmann, C. H.....
Bosqui, E. L.....20, 152,
Bosworth, T. O.....
Botsford, R. S.....
Bowen, C. F.....
Bowen, H. P.....
Bowen, Richard.....
Boyce, Stephen.....
Brackett, G. S.....
Bradford, R. H.....
Bradley, Linn.....
Bradshaw, Frederick.16,
Brasack, Wm.....
Breffit, G.....
Breslau, F. J.....
Bretherton, S. E.....
Brétignière, L.....
Brewer, W. M.....2, 16,
Briggs, Henry.....
Bright, Graham...114, 117, 126,
Brock, R. W.....
Brooks, B. T.....
Brower, C. L.....
Brown, A. P.....
Brown, C. L.....
Brown, E. O. Fowler.....
.....1,
Brown, G. M.....
Brown, Rev. E.....71, 74,
Brown, W. D.....
Browne, D. B.....

Browne, David H.....32, 84, 175, 202
Bryan, Kirk.....1, 114
Bryson, Thomas.....76, 116
Büchel, Herman.....13, 66
Buck, C. A.....46, 47, 131, 144, 182, 190
Buck, W. A.....80, 85
Buehler de Florin, H.....
.....32, 39, 42, 57, 103, 178
Buehler, H. A.....1, 40, 45
Burch, Albert.....16, 23
Burgess, G. K.....50, 66, 186
Burgess, J. B.....111, 137
Burrell, G. A.....79, 91, 119, 126, 205
Burroughs, W. G.....1, 77
Burrows, C. H.....54
Burrows, J. S....1, 68, 78, 81, 83, 160, 205
Bush, Faris V.....1, 13, 16, 22, 27, 30,....
35, 40, 44, 46, 66, 104, 131, 152, 155, 161, 194
Bush, Wm. V.....199
Butler, B. S.....1, 13, 22, 27, 35, 41, 72
Butler, J. E.....132, 182
Butz, G.....50, 196, 175

C

Cairnes, D. D.....1, 78, 88, 91
Cady, Gilbert H.....
.....1, 4, 41, 46, 68, 78, 86, 96, 108
Campbell, A. G.....107, 132
Campbell, J. R.....151
Campbell, M. R.....1, 78, 88, 91, 205
Cameron, A. E.....20, 158
Cameron, F.....43, 169
Cantwell, H. J.....140, 199
Carless, Nöel.....20, 26, 158
Carnaham, H. L.....199
Carpenter, C. B.....68, 74, 108, 182
Carpenter, Everett.....2
Carpenter, E. E.....20, 26, 144, 152, 158
Carpenter, H. C. H.....56, 171
Carpenter, Jay A.....25, 123, 152, 160, 193
Carpenter, R. C.....79, 93
Carr, Bernard.....177
Carr, W. M.....50, 103, 175
Carrigan, J. J.....136, 137
Cartlidge, Oscar.....75, 76, 136, 139
Cartwright, Cosmo T..24, 28, 37, 63, 66, 144
Catlin, W. P.....16, 48, 126, 144, 169
Cave, Henry W.....50, 175, 180
Chamberlin, R. T.....46, 202
Channing, J. Parke....30, 116, 139, 152, 155
Cheney, C. A., Jr.....3, 12, 46
Chevenard, Pierre.....50, 56, 63, 171
Chierici, G.....51, 55, 144
Childs, L. J.....13, 106
Christensen, C. C.....32, 175
Chubb, L. W.....49, 187
Clapp, Charles H.....3, 205
Clapp, Fred C.....3, 86, 91, 109, 144, 202
Clark, C. S.....50, 106
Clark, I. C.....39, 42, 102, 155, 169, 171
Clark, Robert G.....68, 117
Clark, W. W.....50, 56, 57, 59, 166
Clarke, F. W.....12, 104
Claudy, C. H.....84, 87
Clawson, R. R.....140, 193, 205
Clennell, J. E.....152, 158, 166, 171
Clifford, Wm.....76, 116
Coats, Chas. M.....32, 178
Cobb, J. W.....178
Coggeshall, G. W.....101, 164, 193
Colburn, E. A.....133
Colburn, E. A., Jr.....123
Cole, A. A.....28, 126, 199
Cole, L. H.....3, 96, 100, 126
Coleman, A. P.....3
Collins, Edgar.....109, 111
Collins, H. F.....20, 32, 171
Collins, W. H.....3
Comber, W. G.....120
Comstock, Geo. F.....50, 56, 59, 171
Condit, D. Dale.....3, 88, 91
Cone, E. F.....53, 89
Cook, C. W.....13, 102
Copper, M. D.....68, 74, 76, 111, 116, 182
Corkill, E. T.....137
Corlett, G. S.....74, 75, 113, 182
Cottrell, F. G.....177, 182, 196, 201
Coulthard, R. W.....78, 79, 123, 205
Cousins, G. T.....109
Covert, C. C.....4
Cox, G. H.....3, 12, 14, 41, 44, 161
Cox, J. B.....131, 185, 186, 193
Cramer, E.....93
Crane, W. R.....3, 78
Cranston, Robert E.....16, 121
Creighton, H. J. M.....158, 164
Cremer, Richard.....75, 136, 137
Croasdale, Stuart....32, 36, 52, 171, 178, 194
Croghan, E. H.....158, 164, 194
Cronk, Forbes B.....46, 47, 112, 117
Crook, W. J.....158, 194
Cropper, P. H.....30, 144, 161
Crosbie, M. A.....152, 166
Cross, Whitman.....3, 14
Crowe, Thomas.....26, 155, 158
Cullen, Joseph F.....
.....33, 40, 43, 49, 56, 61, 64, 66, 170, 173
Cunningham, Noel.....
.....20, 151, 152, 155, 157, 158, 161
Curtis, H. L.....186
Cushman, A. S.....98, 101, 164, 193
Cutler, F. G.....48, 171
Cutler, H. C.....3, 22

D

D'Ans, J.....103, 164
Dake, C. L..12, 20, 46, 151, 152, 157, 158, 166
Dale, T. Nelson.....3, 14, 96, 104
Daly, R. A.....3
Davenport, L. D.....95, 112, 117
David, L. C.....30, 86, 109, 122, 140, 205
Day, Arthur L.....3, 35
Day, David T.....3, 86, 87
Day, W. R.....199
DeBeque, G. R.....3, 92
DeHart, J. M.....20, 123, 152, 158, 185
DeLury, J. S.....3, 88
DeWilde, F. J.....3, 12, 35, 108
DeWitt, C. W.....20, 158, 161
DeWolfe, E. C.68, 71, 72, 74, 78, 109, 133, 182
Dean, E. W.....85, 87, 168
Dean, Samuel.....68, 75, 118, 136, 137, 140
Del Mar, A.....205
Delius, George.....20, 166
Denis, Theo. C.....38, 41, 45, 98, 102, 140
Dewey, Frederic P.....20, 166, 194
Diamond, W.....82
Dick, W. J.....68, 111, 114, 116, 133, 137
Dickinson, A.....185
Dickson, James.....71, 133
Dinwiddie, J. G.....104, 164
Dixon, James T.....61, 106
Dixon, S. M.....95, 118, 194
Dodd, W. F.....141, 199
Dodge, W. R.....3, 16, 161
Dolbear, S. H.....52, 57, 99, 100, 144, 17
.....52, 57, 99, 100, 144, 171, 176, 178
Donath, Ed.....78, 167, 195
Donkin, Hiram.....24, 38,
41, 56, 57, 58, 59, 61, 68, 81, 96, 98, 136, 144
Dorr, J. V. N.....32, 155, 170, 179, 180
Dougherty, G. T.....50, 59, 167
Douglas, James.....26, 39, 50, 54, 171
Dowling, D. B.....3, 69, 88, 108, 109, 195
Downey, C. J.....199, 202
Douglas, Walter.....199
Dougill, G.....178
Drysdale, C. W.....3, 35, 39, 46, 88, 102
Dudley, Boyd, Jr.....66, 164, 171, 176, 178
Duncan, Lindsay.....176, 188, 193, 197
Dunlop, R. R.....71, 74, 133, 182
Dunn, E. J.....4, 65
Dunn, F. B.....84, 87, 176
Durant, H. T.....131

E

Eastaugh, F. A.....83, 167
Easton, W. B.....152
Eastwood, John S.....161
Ebeling, Dr.....111
Eckel, Edwin C.....55, 152, 160, 161
Eckhardt, Ing. A.....137
Eddy, L. W.....16, 65, 122, 193, 197
Edmonds, L. E.....188, 190
Edwards, C. A.....50, 56, 171
Edwards, Geo. E.....47, 54, 74, 112, 114, 119, 155, 171, 182, 185, 190
Edwards, J. C.....133
Edwards, J. D.....40, 165
Eggeres, John H.....107
Ellis, Hubert I.....16, 17, 106, 115, 118, 121, 122, 133, 145, 202
Ellis, Carleton.....84, 176, 188, 205
Ells, S. C.....4, 92, 94, 95
Emmens, N. W.....4, 17, 25, 35, 39, 42
Emmons, J. V.....50, 55, 198
Emmons, W. H.....36, 205
English, Walter A.....8, 80, 87, 89
Epprecht, Gottlieb.....61, 164
Estep, H. Cole.....46, 54, 145
Evans, G. S.....51, 52, 198
Evans, George D.....69, 72, 116, 133, 141, 142, 182
Evans, L. P.....24, 28, 36, 41, 66, 104
Eve, A. S.....164

F

Farish, J. B.....151
Farrell, J. A.....205
Fath, A. E.....12, 14, 35
Faulkner, H. W.....1
Fay, Albert H.....76, 136
Fegley, H. W.....4, 104
Feldtmann, W. R.....20, 159
Ferguson, W. B.....193
Fernald, R. H.....82, 84, 185
Fieldner, Arno C.....72, 151, 167
Fields, R. A.....48, 176
Fies, Milton H.....137
Finkle, F. C.....188
Fish, F. A.....186
Fisher, W. L.....164, 205
Fisk, E. L.....141, 142
Fitzgerald, F. A. J.....51, 59
Flagg, A. L.....109, 111, 112, 117, 118, 123
Fletcher, J. E.....50, 172
Flynn, F. N.....32, 167, 179
Foley, F. J.....73, 74, 182
Folprecht, H.....4, 69, 78, 109
Foote, Paul D.....29
Forbes, C. R.....109, 111, 127, 139, 189
Foster, H. S.....42, 51, 97, 103
Frank, Fritz.....82, 83
Frank, R. J.....204
Franklin, B. A.....141, 205
Fraser, A.....32, 167
Frech, R. F.....4, 17, 30, 39, 42, 46, 65, 69, 86, 99, 104
Frechette, Howells.....95, 100, 102, 104
Free, E. E.....4, 101
Freeman, O. W.....4, 22, 99, 127, 145
Fréminville, Ch. de.....205
Friend, J. N.....52
Fuchs, Fred G.....46, 54, 108
Fuest, Arthur.....151
Fulton, C. H.....97, 103, 177, 197, 201
Fürer, J.....101, 103, 179

G

Galdi, B.....4, 86
Gale, H. S.....8, 14, 103, 105
Galpin, S. L.....4, 98, 100
Gardner, E. G.....115, 122, 123
Garrison, F. L.....14, 188, 202
Gartside, A. E.....42, 156, 196
Geary, W. P.....45, 141
Gerke, Arthur.....151, 156, 157
Getzler, A.....102, 178
Gibson, A. H.....4, 17
Gilpin, C. D.....119, 131, 156, 159
Girard, F. J.....98, 156, 157
Girty, G. H.....4
Gleason, F. A.....42, 76, 124
Glover, P. S.....56, 115
Gluck, Leo.....32, 137, 141
Godfrey, Eward.....137
Goerens, P.....48, 50, 55, 157, 176
Goldman, J. M.....118
Good, E. T.....52
Goodell, John A.....142
Goodwin, L. Hall.....30, 109, 116, 132, 142
Gothe, F.....4, 79, 104
Gottsberger, B. E.....38, 127, 146, 193, 161
Gottschalk, A. L. M.....4, 95, 104
Gowland, Wm.....172, 179
Grady, W. H.....69, 81, 124
Granigg, B.....4, 35, 44, 46, 88
Grant, U. S.....4, 22, 27, 35, 41, 44, 46, 96
Grasty, J. S.....98, 105, 147
Gray, F. W.....69, 79, 127, 135, 141
Greene, F. T.....197
Greenfield, R. C.....71, 119, 182
Greenwood, H. C.....59, 104, 164
Gregory, Herbert E.....4, 95
Gregory, T. W. D.....72, 151
Grempe, P. M.....53, 83
Grossman, H.....164, 205
Grout, Frank F.....4, 94, 195
Grover, N. C.....4
Guess, Geo. A.....32, 84, 172, 176, 177, 197
Guillet, L.....37, 44, 56, 63, 64
Gwinn, J. W.....133, 183

H

Haanel, B. F.....79, 82, 84, 92, 205
Hackett, E. F.....4, 78
Hadfield, Robert A.....48, 52, 56, 172
Hadley, H. F.....88, 165, 167
Hafer, Claud.....52, 64, 167, 176, 185, 186
Hager, Dorsey.....4, 88
Hale, A. J.....103
Haley, C. B.....17, 106, 119, 121, 122, 134, 151, 199
Hall, Albert E.....145, 153
Hall, Clarence.....109
Hall, H. L.....30, 118
Hall, John B.....50, 52, 58, 172, 176, 198
Hall, Wm. A.....87
Hamilton, E. M.....26, 64, 159, 160
Hanchett, F. B.....140, 205
Hancock, R. T.....5, 205
Harder, E. C.....5, 12, 46, 202
Hardy, William.....75
Hardinge, H. W.....21, 153, 157
Hardy, Wm.....69, 118, 127
Harper, C.....63, 170
Harper, D. R.....32, 37, 195
Harrington, C. F.....69, 77
Hartley, Carney.....17
Harvey, W. H.....52
Hatchett, R. H.....167, 179
Haughton, John L.....37, 61
Hawley, F. G.....64, 167
Hay, T. R.....73, 183, 190
Hayden, Charles.....17, 180, 204
Hayward, C. R.....37, 176, 198
Hazlett, A. J.....86, 145
Hebburn, A. E.....17, 121
Heinly, Burt A.....115, 122
Heller, Milton W.....153
Henahen, T. R.....5, 24, 59, 65, 66, 100, 121, 161, 183, 186
Hennen, Ray V.....5, 78, 108
Henry, Philip W.....89
Henshaw, F. F.....5
Henshon, T. R.....96, 99
Herbing, Dr.....82, 101, 160, 199

Herbst, Fr.....119, 137
Hering, Carl 186, 195
Herman, H.....5, 61, 153, 155
Hermanns, Hubert..... 52
Herrington, C. F..... 176
Hess, Frank L.....59, 65, 75, 115, 145
Hewett, D. F.....5, 8, 23, 47, 88, 91, 96, 146
Hice, R. R.....
.....81, 83, 94, 96, 107, 123, 131, 145
Hicks, W. B.....101, 151, 195
Hielscher, E.....190, 205
Higgins, Edwin.....140, 199
Higgins, Will C.....
5, 17, 25, 30, 39, 42, 111, 115, 116, 127, 205
Hill, James M.....5, 22, 27, 30, 41
Hille, F..... 5
Hirschberg, C. A.....115, 109, 205
Hobart, Frederick.....24, 28, 46, 145
Hobart, R. E.....72, 74, 119, 183, 193
Hodge, E. T.....103, 205
Hodge, J. M.....5, 78
Hodsman, H. J..... 178
Hofman, H. O.....39, 172, 180
Hood, B. B.....47, 133, 153, 155
Holbrook, E. A.....72, 205
Holbrook, H. L.....84, 191
Holford, W. G.....
.....17, 108, 112, 114, 117, 133, 189, 191
Holl, Julius S..... 72
Holland, T. H.....5, 89
Holmes, Henry.....69, 72, 141, 202
Holmes, J. A..65, 69, 76, 77, 83, 84, 90, 91
111, 117, 136, 137, 139, 183, 195, 197, 201, 205
Hore, Reginald E.....66, 104
Hornaday, W. D..... 127
Horton, A. H.....4, 5
Hotchkiss, W. O.....94, 145, 195
Hoyt, B. F.....17, 127, 141
Hoyt, W. G.....4, 5
Hubley, F. C.....78, 84, 195
Hubbard, J. D.....17, 122, 123
Hubert, H.....176, 190
Huberth, Andreas.....111, 169
Hughes, A. D.....17, 122, 123
Hughes, Ben.....114, 127
Hughes, W. W.....5, 94, 124, 145, 155
Humes, James.....124, 127
Humphrey, I. W.....84, 87
Hunter, C. M..... 86
Hunt, J. Stuart.....59, 65
Huntley, L. C..... 5, 88, 91, 95
Hurja, Emil E....17, 61, 106, 121, 122, 127
Hursh, R. K.....94, 168
Huston, George.....5, 12, 35
Hyde, J. M.....43, 160, 168, 173, 179
Hynes, D. P.....153, 155, 195

I

Iddings, J. P..... 5
Ingalls, H. W.....26, 39, 155
Ingalls, W. R.....32, 39, 42, 45,
86, 97, 103, 145, 172, 176, 179, 180, 197, 202
Ingersoll, F. B.....17, 121
Ionides, S. A.....43, 160, 168, 173, 179
Ives, L. E.....5, 42, 46, 106, 114, 170
Irwin, Will..... 202
Izod, E. G..... 114

J

Jackling, D. C.30, 108, 124, 127, 145, 160, 162
Jacobs, E.....69, 141
James, H. G.....86, 87, 89, 90, 145
Jamieson, G. S.....97, 164
Jaumann, G..... 205
Jeffrey, E. C. 12, 78, 79
Jenks, A. W.....17, 86, 103, 127, 176
Jentsch, K.....111, 112, 137
Jewell, W. R.....87, 90, 99, 193
John, W.....47, 155, 172
Johnson, Harry R.....5, 88, 99, 91
Johnson, J. R..... 133
Johnson, J. E., Jr.....46, 48, 50, 52,
54, 137, 172, 176, 177, 185, 189, 191, 197
Johnson, R. G.....69, 112
Jones, A. H..... 153
Jones, C. C.....47, 145, 193
Jones, E. H.....33, 124
Jones, W. W.....69, 133
Jongmans, W. 5 79
Jordan, Henry K.....5, 69, 78
Jouniaux, M.....165, 170, 173, 180
Jungst, Ernst.....46, 58, 102
Juretzka, Franz.....39, 42, 164, 172, 197

K

Kalmus, H. T.....63, 64, 170
Kanarr, H. M..... 119
Kay, Fred H.....6, 78
Karr, C. P.....37, 195
Keele, J. 6, 94
Keen, C. S.....91, 201
Keeney, R. M..33, 40, 43, 48, 49, 54, 56,
61, 64, 66, 153, 160, 170, 172, 173, 176, 185
Keep, Glenn A.....
21, 26, 32, 39, 43, 170, 172, 176, 179, 195
Keffer, Frederic.....6, 35, 106
Keighley, Fred C.....69, 77, 118, 127
Kellberg, I. N.....50, 186
Kelso, J. A..... 93
Kemp, J. F.....6, 12, 203, 205
Kempher, L. S.....6, 89, 91, 92
Kennan, Chester T.....12, 104, 106, 199
Kenner, A. P..... 205
Kennedy, J. C.....6, 29, 167
Key, A. Cooper..... 142
Kiby, W.....82, 104
Kidder, A. D..... 107
King, Rowland.....21, 37, 167
King, Charles B.....46, 69
King, E. S.....153, 195
Kirkpatrick, W. C..... 77
Klein, A. A.....93, 94
Kneeland, F. H.....176, 205
Knickerbocker, E. J.....79, 131
Knoeppel, C. E..... 205
Knopf, Adolph .....
....6, 12, 14, 23, 27, 29, 41, 47, 66, 78, 202
Knox, N. B.....17,
106, 109, 112, 119, 121, 122, 134, 141, 151, 199
Koenig, Adolf 169
Köhler, W.....104, 165
Kranz, W. G.....48, 185
Kratz, A. P.....188, 195
Kraus, E. H.....13, 102
Krebs, C. E.....6, 78, 89, 91, 94, 202
Kreisinger, Henry.....77, 188
Krische, P.....98, 101, 103
Kukuk, P.....5, 79
Kummel, H. B.....
.....14, 35, 46, 94, 95, 96, 97, 100, 103, 104

L

Laist, Frederick....32, 97, 155, 172, 179, 197
Lakes, Arthur.....6, 23, 29, 61, 94, 127, 131
Lake, E. F.....48, 169, 172
Lamar, J. R.....89, 199
Lamb, Mark R.....
...6, 17, 25, 61, 101, 131, 153, 186, 191, 205
Lang, Herbert.....21, 26, 32, 40, 172
Lanza, A. J.....140, 199
Larkin, F. B.....84, 195
Larsen, C. L.....33, 43, 48, 170, 173, 179
Lass, W. P.....21, 159
Laughlin, J. P. M.....155, 202
Law, J. C.....77, 82, 160
Lawrence, Beardsley.....115, 189

Lawry, Ray G. 72
Lawson, Andrew...6, 23, 35, 41, 94, 95, 96
Lazelle, E. W. 94
Leblane, F. L.....69, 127
Ledoux, A. R.....162, 167, 206
Ledeboer, J. H. 84
Leiden, W. J.....6, 79
Leisk, R. D.....32, 179
Leland, F. M. 131
LeRoyal, P.....6, 86
Lesher, C. E.....80, 108
Leslie, E. H.....43, 44, 101, 145, 170, 172
Levy, L. M.....21, 159, 167
Lewes, V. B.....87, 164
Lewis, Ernest A. 44
Lewis, J. V.....6, 14, 95, 104
Lewis, Robert S.....32, 153
Lewisohn, S. A.....37, 108, 204
Liang, H. T. 6, 25, 39, 42, 112, 124, 145, 162, 206
Lilienberg, Nils. 51
Lincke, J. J. 23
Lincoln, F. C. 6, 18, 61, 124, 127, 153, 155, 160
Lind, S. C.....59, 65, 167, 186
Lindgren, Waldemar.....61, 145
Lines, F. F.....48, 52, 57, 172, 176
Lockwood, J. H.....141, 142
Lof, E. A.....186, 188, 191
Logan, W. N.....94, 95, 96
Löhe, Theo.....53, 173
Lomax, C. S.....54, 79, 83
Long, W. G.....6, 86, 90
Lonsdale, T. P.....73, 188
Lotz, Alfred.....77, 84, 188, 191
Loughlin, G. F.....6, 36, 41, 44
Low, F. R.....79, 93
Lowden, H. B. 153
Lowry, R. A.....73, 109
Lucas, F. C.....80, 83
Lum, W. O.....52, 187
Lunt, H. F.....159, 195
Lupton, Charles T.....6, 86, 89, 91
Luty, B. E. V. 52
Lymn, A. H. 190
Lyon, D. A.....21, 26, 33, 40, 43, 48, 49, 56, 61, 64, 66, 82, 160, 168, 170, 173, 179

M

Macauley, C. A. 118
Maccoun, A. E.....49, 83, 173, 176, 195
MacDonald, A. 206
MacDonald, J. A.....18, 106, 123
MacDowell, C. H. 98, 101, 103, 106, 124, 127, 197
MacKenzie, J. D.....6, 14, 102
MacFarren, H. W.....157, 102
McBride, R. S.....40, 165
McCauley, W. J.....21, 59, 197
McCrystle, J.....76, 77, 137, 191
McDonald, David P.....7, 108
McDonald, P. B.....7, 26, 47, 78, 89
McDonnell, C. C.....42, 97, 169
McDowell, J. C.....7, 91, 108, 165
McGlashan, H. D. 7
McGwire, Chas. H.....84, 188
McInnes, William 7
McLaughlin, R. P. 7, 18, 86, 87, 124, 141, 146, 200, 204
McLean, D. L. 109
McLeish, John.....24, 28, 38, 41, 52, 63, 66, 81, 83, 90, 91, 93, 94, 96, 98, 104, 146
McLennan, John F.....12, 23, 27
McLuckie, John 141
McMahon, Wm.....76, 137
McNulty, Bernard L.....92, 94
Maguire, Don. 99
Malcolmson, C. T. 160
Mallett, J. P.....94, 187
Manlove, Geo. H.....173, 206
Manning, V. H. 80

Mat[illegible] [illegible] 23, 204
Mat[illegible] [illegible] 7, 14, 61, 114
Mat[illegible] [illegible] 141
Mat[illegible] [illegible] 191
Mat[illegible] [illegible] 91, 142, 165
Mat[illegible] [illegible] 7, 107, 166
Mat[illegible] [illegible] 182
Mat[illegible] [illegible] 14, 39, 96, 109, 128
Mat[illegible] [illegible] 41, 92, 141, 144, 188
Mat[illegible] [illegible] 49
Mat[illegible] [illegible] 33
Mat[illegible] [illegible] 7
Mat[illegible] [illegible] 97, 156
Matthesius, Walther.....49, 177
Mat[illegible] [illegible] 92, 107, 115, 177, 178, 179, 191, 201
Maynard, T. Poole.....7, 27
Mead, W. J. 7, 12, 44, 98
Means, Richard K. 94, 95
Means, A. H. 12, 23, 27, 36, 41, 44, 78, 146
Meagrew, Herbert A. 21, 22, 124, 141, 159, 168, 169, 179, 191
Meaness, S. 78, 117, 126
Mein, W. W. 21, 151
Meissner, O. E. 7
Meller, Franz 109
Mensell, P. D. 7, 23, 26, 44, 106
Mercer, H. T. 95, 112, 118, 186
Merchant, R. C. 195
Merrick, D. V. 206
Merrill, F. J. H. 23, 27, 36, 104
Miani, G. 49, 54
Middleton, W. E. 51, 107, 151
Milnesell, H. S. 99, 143
Miller, R. G. 72
Miller, W. G. 7
Moffit, Fred H. 7, 23, 36, 128
Moll, F. K. R. 118
Moller, M. 99, 167
Monnett, Osborn 188, 197
Moodie, Roy L. 7, 84
Moore, E. S. 7
Morgan, H. W. 115
Morgan, J. D. 73, 81, 116, 136, 195
Morse, D. C. 21, 157, 158, 159
Moser, L. 43, 73, 167
Mudd, S. W. 7, 23, 27, 29, 36, 66
Mullholland, J. H. 206
Mullen, J. L. 78, 138
Mumpre, C. E. 109, 111, 128
Muniz, G. 39, 179, 174
Murray, M. Thornton. 21, 153, 157, 197
Mutch, Per, A. 187
Myers, R. W. 191, 170
Myers, Romaine 98, 187
Myhre, F. 39, 167

N

Nagel, Pr. 42, 170, 173
Nason, F. L. 12, 44
Nethands, Robert 107
Nesbit, A. F. 173, 187
Nettleton, S. 112, 117
Neumann, B 21, 25, 29, 40, 42, 45, 52, 57, 61, 62, 64, 65, 146, 173, 180
Newby, J. McLean .7, 13, 22, 29, 41, 42, 44
Newton, Edmund 1, 47, 125
Newton, E. U. 18
Newton, L. V. 187, 195
Newton, S. 108, 140
Nicol, J. M. 18, 21, 122, 156
Nichols, Wm. H 105, 206
Niggeman, H. 104, 165
Nimmo, Adam 202
Nishihara, G. S. 7, 13
Nissen, A. E. 27, 41
Noble, R. 111
Norton, Thomas H. 102, 146, 165
Northern, J. D. 86
Norcross, F. S. 109, 111, 183

O

O'Boyle, Francis 21, 153, 157
O'Brien, Geo.....138, 139
O'Connor, C. H.....7, 23, 47
O'Donnell, T. A.....90, 146, 200
Oberfell, G. G.....85, 91
Oberhelman, G. O.....59, 167
Ocholm, L. W.....104
Olden, Chas.....7, 99, 122, 128, 156
Onions, R.....54, 198
Oren, A. J.....33, 179
Oriol, Rafael.....75, 116
Osborne, Thomas.....58, 146, 167
Ourand, W. R.....72

P.

Pack, Robert W. 8, 80, 87, 89
Padour, A.....7, 69, 112, 115, 122
Padgett, F. W.....84, 87
Palmer, C. H., Jr.....109, 124
Paquet, J.....48, 50, 55, 167, 176
Pardee, J. T.....8, 23, 27, 47, 96, 146
Park, James..... 167
Parker, J. H..... 50
Parker, Edward W.....
.....24, 28, 38, 41, 66, 81, 90, 100, 104, 146
Parker, Richard A.....128, 206
Parks, George A.....8, 79
Parks, Wm. A.....8, 96
Parr, S. W.....80, 165, 167
Pascal, Paul.....64, 165, 170, 173, 180
Paterson, G. Stewart.....
.....61, 107, 109, 123, 151, 200
Paton, J. D..... 69
Patton, H. B.....8, 18
Paul, John W.....75, 76, 113, 138
Payne, James H.....33, 173, 193
Pearson, Hugh..... 89
Pearson, J. C..... 93
Peck, W. R.....8, 79
Penny, Alec N.....30, 118, 128, 134
Penrose, R. A. F., Jr.....8, 105
Pentland, W. J.....21, 26, 153, 156, 159, 195
Percival, F. B.....18, 206
Percy, Lee..... 113
Perkin, F. M.....87, 146
Perkins, George H.....8, 96, 103
Pertusi, C.....65, 165
Peter, F.....49, 134, 177, 188, 197
Petraschek, W..... 65
Phelps, C. C...70, 109, 110, 111, 113, 124, 189
Philips, A. J..... 94
Pickles, V.....183, 189, 191
Pilkington, Charles.....70, 113
Pinnock, H. T.....8, 102
Pinder, J. W.....21, 153, 157
Polack, W. G.....97, 169
Ponton, G. M.....80, 168
Poole, G. G. T.....119, 138
Pope, Fred J.....33, 179
Porter, Horace C.....80, 82, 83, 85
Potter, A. A.....80, 85
Powers, Sidney..... 8
Pratt, T. E..... 114
Pratt, John I.....74, 183
Prehn, Martin...77, 124, 131, 134, 183, 193
Prentiss, F. L.....177, 197
Prescott, Basil.....8, 13
Price, W. Z.....8, 70, 76, 78, 107, 108, 138
Prichard, W. A.....8, 18, 107, 121, 124, 140
Proske, O.....43, 178, 195
Pyne, F. R.....173, 178
Pullé, Guido.....82, 92
Pulsifer, H. B.....40, 52, 180, 198
Purington, C. W...8, 18, 124, 128, 146, 202

Q

Quinney, Elwin.....98, 102, 165

R

Ralston, O. C.....33, 40, 43, 48,
...156, 160, 168, 169, 170, 173, 179, 186, 196
Randolph, Beverley S.....8, 93, 128, 187
Rankin, G. A.....8, 93
Ransome, F. L.....8, 67, 105
Ray, J. C.....8, 36
Raymond, Miner.....72, 131
Raymond, R. W..... 206
Ravey, M. J.....70, 87, 91
Read, R. G.....72, 156
Read, Thomas T.....30, 110, 118,
124, 128, 131, 134, 141, 142, 153, 156, 173, 206
Reed, Joseph W..... 116
Reger, David B.....78, 108
Reisser, H.....72, 134, 146, 197
Requa, M. L.....90, 146
Reusch, K.....97, 165
Revett, B. S.....18, 121
Revilla, Jose.....73, 117, 183
Revillon, J. W.....54, 58, 80
Reynolds, Sim.....70, 95, 124
Rice, George S.....75, 76, 136, 139, 196
Richards, R. S.....
.....71, 73, 77, 124, 134, 183, 189, 194
Richardson, G. B.....8, 27, 36, 59, 96, 100
Rickard, T. A.8, 14, 21, 23, 27, 36, 67,
124, 128, 146, 153, 156, 159, 161, 189, 200, 202
Ricketts, L. D.....33, 179
Rider, J. H.....18, 120, 183, 189, 191
Riedel, R.....63, 170, 173
Ries, H. 8, 94
Riggs, J. S.....52, 185
Riter, G. W.....43, 157, 160, 168, 173, 179
Rittman, W. F.....85, 87, 168
Roan, J. M.....70, 76, 136, 141, 200
Roberts, Frank C.....146, 173, 202
Roberts, Peter..... 142
Roberts, W. R.....73, 120, 134, 156
Robinson, R. H.....41, 97, 165
Robinson, W. L..... 80
Roderick, J. E.....70, 81, 128, 136, 140, 146
Roesler, H. A.....156, 196
Rogers, Austin F..... 14
Rogers, G. S.....80, 99, 107, 108, 153, 189
Rogers, L. C.....33, 179
Roodhouse, C. E.....159, 168
Root, W. A.....18, 121
Rose, K. T.....21, 160, 170, 173
Rosenberger, A.....128, 132
Rosenblatt, G. B.....18, 118, 120, 165, 183
Rottenbacher, Josef.....95, 113
Rouillard, A. P..... 114
Rowe, J. P..... 8, 27, 41, 89, 91
Royce, Stephen.....93, 113
Rubidge, F. T.....128, 143
Ruggles, D. M.....18, 121
Ruhl, Otto.....40, 43, 154, 156
Rush, R. M..... 189
Russell, W. S.....73, 122
Ryan, Edward.....18, 25, 39
Ryan, John D..... 186
Rzehak, A.....78, 167, 195

S

Saint-Smith, E. C....8, 23, 27, 62, 123, 151
Salisbury, R. D...35, 46, 94, 96, 97, 100, 103
Sampson, R. J.....9, 70, 79
Sanderson, J. A.....65, 66
Sarvaas, John..... 128
Saunders, W. L.....200, 206
Sawhill, R. V..... 62
Schaller, W. T.....14, 37
Schirmer, R. E..... 115
Schmacher, —.....19, 200
Schmidt, F. Sommer..30, 111, 124, 128, 134
Schneider, G. W.....
.....23, 27, 36, 47, 52, 62, 101, 131, 202
Schock, N..... 49
Schoeller, W. R.....57, 165

Schrader, E. J.....21, 159
Schrader, Frank C.....9, 23, 27, 36, 58, 59
Schulz, I. P.....67, 196
Schütz, I. E.....42, 162, 179
Schweizer, E.....111
Scott, E. K.....35, 99, 101, 163, 169, 187, 194
Seger, Dr. H.....93
Seibert, F. M.....91
Shaler, M. K.....1, 13, 35, 46, 61, 83, 84, 99, 171, 188
Shapira, Samuel.....47, 49, 135, 154, 156, 170, 191
Sharp, Alexander.....9, 18, 42, 124, 146, 173, 200, 206
Shaunessy, C. S.....115
Shaw, E. W.....9, 76, 91, 117
Shearer, D. R.....74, 134, 182
Shook, G. A.....165, 173
Shubart B.....13, 154
Siddall, Frank N.....70, 118
Siebenthal, C. E.....41, 44, 45, 147
Simmersbach, O.....85, 173, 178, 196, 197
Simmons, Jesse 62, 162
Simons, Theodore.....22, 26, 33, 40, 43, 114, 154, 156, 185
Skinner, M. E.....49, 51, 174, 187, 196
Skinner, W. P.....206
Skinner, R. P.....146, 206
Smale, F. L.....206
Smethurst, Richard.....143
Smillie, Sheldon.....134, 183
Smith, Carl D.....9, 89, 92
Smith, George Otis.....9, 29, 58, 62, 63, 67, 70, 81, 90, 99, 100, 102, 103, 108
Smith, H. H.....19, 25, 39, 73, 110, 147
Smith, H. W.....74, 183
Smith, J. D. Audley.....33, 186
Smith, J. T.....87
Smith, M. B.....80, 206
Smith, Richard A...9, 38, 52, 89, 92, 105, 147
Smith, W. H.....9, 57, 58, 59, 97, 98, 100, 103, 128, 165
Smither, T. M.....118, 128
Snelling, W. O.....85, 87
Snyder, W. T.....72, 74, 120, 183, 184
Soehnlein, M. G. F.....25, 62, 134, 141, 174
Somers, R. E.....9, 13, 14
Soper, E. K.....4, 94, 95, 102, 195
Sparks, C. P.....184
Spaulding, C. F.....22, 25, 26, 33, 40, 125, 154, 159, 161, 162, 170, 177, 179, 180
Spearman, Charles.....14, 22
Spray, L. E.....22, 162
Springer, J. F.....70, 71, 73, 74, 134, 135, 147, 191
Stanley, G. H.....29, 168
Stark, C. J.....55
Stead, J. E.....51, 80, 174, 199
Stebinger, Eugene.....9
Steel, Donald 19, 107, 113
Steele, Heath,.....194, 206
Steglich, Curt.....79, 194
Steidtmann, Edward.....94, 195
Stephenson, L. W.....9, 14, 110
Stevens, Thos. B.....22, 159
Stewart, C. A.....9
Sticht, Robert 33, 102, 174, 177, 178
Stief, F. A.....56, 57, 62, 97, 168
Still, Alfred.....187
Stirling, J. T.....70, 141
Stoltz, G. E.....52, 120, 187
Stone, George C.....44, 140, 174
Stone, R. W.....9, 99, 105
Stone, S. R.....30, 93, 128, 134, 162
Stören, R.....49, 174
Storm, C. C.....82, 111
Stotz. R.....51, 105
Stronck, H. N.....128, 141
Strong, W. W.....49, 187, 198, 201
Stratton, S. W.....165, 168, 187
Stull, R. T.....94, 168
Sturtevant, T. E.....110
Stutz, Ernest.....105, 160, 180, 198
Summers, L. L.....99, 101, 169, 194
Sundt, F. A.....31, 128
Swart, W. G.....43, 128, 160, 168, 173, 179, 204
Swanden, Theresa.....51
Swinner, C. E.....187
Sykes, Wilfred.....114, 117, 184, 187, 194
Symons, S. W.....70, 114

T

Tamaru, S.....104, 105, 165, 169
Tartar, H. V.....41, 97, 165
Tarowitz, A. Gurka.....119
Taylor, W. P.....9, 19
Tays, E. A. H.....9, 13
Teets, D. D.....78, 89, 91, 94, 202
Thompson, A. B.....87
Thompson, A. G.....9, 19
Thompson, A. P.....14, 36
Thompson, F. A.....22
Thompson, J. W.....119, 112, 118, 188, 200
Thompson, William....33, 154, 156, 162, 180
Thomson, Francis A.....26, 157, 179
Thayer, B. B.....31, 147
Thoel, Walter.....32, 168, 169
Thomas, Kirby.....9, 58
Thomas, W. P.....70, 72, 128
Thorne, Chas. S.....80, 206
Thornhill, E. B.....65, 165, 180, 194
Thrasher, G. M.....51
Tillson, B. F.....110, 189
Tingle, Alfred.....129
Toll, J. D.....105, 206
Tomlinson, C. W.....14, 95, 168
Trautschold, Reginald.....80, 189
Treadwell, W. D.....43, 165
Truschkoff, N. T.....9, 19, 113, 129
Tupper, C. A.....31, 34, 47, 113, 114, 129, 132, 134, 140, 142, 151, 152, 154, 157, 162, 174, 178, 184, 185, 190
Turner, H. W..9, 10, 27, 36, 39, 44, 202, 207
Turner, J. K.....129
Turner, Thomas N.....19, 107
Twitchell, M. W.....15, 53, 82, 93, 94, 95, 96, 104, 105, 147
Tyrrell, J. B.....10, 23, 123, 147, 206

U

Udden, J. A.....10, 102, 110
Udhany, A. D.....10, 31, 36, 102
Uglow, W. L.....44, 129

V

Vahle, M. 114, 116
Vail, Rich. H.....34, 174, 191, 198
Vallentine, E. J.....19, 105
Vanbrunt, Bradley.....34, 121, 198
Van Tuyl, Francis M.....10
Verner, John 75, 117
Vivian, G.....174
Voil, C. H.....65
Von, Dr.....138
Voss, E. G.....89, 165

W

Wade, Arthur.....10, 89, 92
Wadleigh, F. R.....10, 70, 82, 88, 132, 134
Waggaman, Wm. H.....99, 165
Wagner, E. B.....134, 184

Wagner, Frank H.....47, 118
Wagner, H. W..... 186
Walker, S. E.....73, 184, 188
Walsh, L. O. P.....82, 147
Waltenberg, R. G..... 66
Waring, Gerald A..... 10
Warner, Irving.....143, 200
Washburne, C. W.....10, 89
Washington, H. S..... 10
Waters, D. B..... 203
Watkins, J. H.....10, 13, 98, 107
Watson, T. L.....10, 14, 98, 105, 147
Wattenschied, P. M.....113, 138
Watts, A. C.....
.....70, 76, 110, 115, 117, 125, 141, 190
Wauchope, J. A.....10, 14, 36
Weber, K. A.....10, 14, 24, 28
Weber, Morton..... 151
Wedgewood, E. A.....191, 200, 201
Wedmore, E. B..... 187
Wegeman, C. H.....10, 79
Weisser, Franz.....80, 166
Weitlaner, R. J.....49, 177
Welch, H. V.....97, 166
Weld, C. M.....49, 54, 174, 202
Werner, Bergrat H.....13, 14, 28
Werner, R.....37, 207
West, Arthur.....177, 188, 190
West, Thomas D.....136, 138
Westby, G. C.....34, 180
Wheeler, W. C.....12, 104
Whildin, W. G.....70, 118, 129
Whitaker, M. C.....82, 88
White, A. G.....10, 63
White, Chas. H.....166, 168, 180
White, David 11, 89
White, H. A.....154, 162, 196
White, I. C.....75, 116
White, J. H.....140, 141
Wien, J. Hübers..... 80
Wig, Rudolph J..... 93
Wikander, R..... 190
Wile, Julius I..... 162
Wile, Raymond S.....62, 170, 174, 198, 201
Wilbert, H.....11, 79
Williams, G. F.....11, 99, 110, 113, 116, 117, 120, 129, 134, 157, 191, 202, 207
Williams, J. T.....80, 141, 147, 203
Williams, L. B..... 151
Williams, M. J.....70, 73, 154
Williams, R. Y..... 129
Williamson, H. A..... 108
Williamson, R. B.....19, 158
Willis, R. H.....71, 114
Willoughby, A. A.....138, 140, 143
Wilson, E. B.....114, 196
Wilson, J. R.....54, 166
Wilson, W..... 186
Winchell, A. N.....
.....11, 15, 24, 28, 67, 79, 105, 129, 203
Windhausen, A.....11, 89, 203
Wintermeyer, F..... 120
Wolf, Albert G..... 108
Wolf, H. J.....8, 18
Wood, D. B.....11, 190
Wood, Percy..... 70
Woodworth, R. B.....71, 118
Worcester, S. A.....117, 141, 162
Worden, E. P.....114, 184
Wraight, E. A..... 43
Wright, C. A.....40, 43, 154, 157
Wright, G. W..... 186
Wright, Ira L....11, 15, 19, 25, 36, 44, 203
Wright, W. H.....11, 19
Wüst, F.....51, 105
Wysor, Henry.....22, 34, 40, 49, 62, 174

Y

Yates, Preston K.....96, 134
Yensen, T. D.....51, 105, 171, 174, 187
Younger, John.....51, 177, 196

Z

Zausch, H.....11, 107

Subject Index

A

Accidents in Mines and Mills....136
Accounts....143
Acetylene Mine Lights (see Lighting)...113
Acids (Mineral)....97
Adits (see Tunnels)....115
Agitation (see Cyaniding)....158
Alkalis....97
Alloys (Non-Ferrous)....56
Aluminum....64
Alumns (see Salines)....103
Amalgamation....157
Analysis....166
Anthracite (see Coal)....68
Antimony....56
Arsenic....97
Asbestos....97
Asphalts....92
Assaying (see also under Gold, Silver, Copper, Lead and Zinc)....166

B

Ball Mills (see Crushing)....151
Barytes....98
Bauxite....98
Belts and Belting (see Haulage and Transport)....131
Bins and Pockets (see Storage)....135
Bismuth....57
Bitumens....92
Bituminous Coal (see Coal)....68
Blast Furnaces....48
Blast-Hole Drilling (see under Drilling)..108
Blasting....111
Blowers and Fans (see under Ventilation)....116
Boilers and Feed (Steam)....188
Bookkeeping....143
Borax (see under Potash)....101
Boring....108
Breakers (see Coal Preparation)....72
Brick....93
Briquetting....160
Bucket Elevators (see under Transport)....132
By-Products....82

C

Cables and Cableways (see under Haulage)....131
Cadmium....45
Carnotite....104
Cars and Accessories (see under Transport)....130
Cement....93
Production....144
Centrifugal Pumps (see under Pumps)..114
Ceramics....94
Charging Furnaces....48
Chemistry....165
Chilean Mills (see under Crushing)....151
Chlorination....160
Chromium....57
Churn Drilling (see under Drilling)....108
Clays....94
Coal—
Accidents....76, 136
Briquetting....160
By-Products....82
Dust....74
Economics of Mining....77
Electricity in Mines (see also under Electricity)....74
Explosions....74
Fields....68
Fire Damp....74
Gases....74
Geology....77
Handling....72
Haulage....71
Hoisting....71
Labor....77
Lighting....75
Management....77
Marketing....77
Mechanical Cutters....73
Mine Fires....74
Mines and Mining....68
Mining Accounts....143
Miscellaneous....79
Power in Coal Mines....83
Preparation....72
Production....81, 144
Rescue and First-Aid....139
Safety....137
Sanitation....139
Screening (see under Preparation)....72
Signalling....75
Sociological....77
Storage....72
Testing....152
Tipples....72
Transport....71
Ventilation....76
Cobalt....63
Coke....82
Production....144
Combustion Engines....188
Compensation of Workmen (see under Labor)....140
Compressed Air....189
Concentration....154
Concrete....95
Production....144
Conservation....201
Conveyors....132
Copper—
Electricity in Mills and Smelters....185
Electricity in Mines....182
Geology....30
Leaching (see also Hydrometallurgy)....31
Milling....31
Milling Costs....160
Mine Accounts....143
Mines and Mining....30
Mining Costs....123
Miscellaneous....36
Production....37, 144
Refining....31
Smelting....31
Corundum....104
Core Drilling (see under Drilling)....108
Costs—
Milling....160
Mining....123
Miscellaneous....151
Crushing....151
Cutters, Mechanical Coal....73
Cyaniding....158

D

Dams (see under Mine Waters).....116
Decantation (see under Cyaniding).....158
Diamond Drilling 108
Diamonds (see under Gems)..... 99
Discharging, Furnaces..... 48
Distillation (see under Petroleum)..... 87
Drafting 107
Drainage (see under Mine Waters).....116
Dredges and Dredging.....120
Drifts and Drifting (see under Sinking and Driving).....112
Drills and Drilling.....108
Driving 112
Dust—
  Coal 74
  Flue 177
  Mine 125
Dynamite (see under Explosives).....111

E

Economics of Coal Industry..... 77
Educational 203
Electric Furnaces 48, 186
Electric Motors 182, 185
Electric Smelting (see under Electrometallurgy) 169
Electricity—
  Blasting 111
  General 185
  Haulage 131
  Hoisting 119
  Hydro-Electric 185
  In Mines 182
  In Mills and Smelters 185
Electrochemistry 169
Electrocyaniding 158
Electrolysis 169
Electromagnetic Ore Dressing.....169
Electrometallurgy 169
Electrosiderurgy 169
Electrostatic Ore Dressing.....169
Elevators (see under Conveying).....132
Engines—
  Combustion 188
  Gas 188
  Gasoline 188
  Oil 188
  Producer Gas 190
  Steam 188
Excavators 121
Exploders 111
Explosives 111
Explosions in Coal Mines..... 74

F

Falls of Ground (see under Supports)..117
Fans, Ventilation (see under Ventilation) 116
Faults (see under Geology)..... 1
Feldspar 98
Fertilizers 98
Filters (see under Cyaniding).....158
Financial 204
Fire Damp 74
First-Aid 139
Flue Dust (see also under Iron and Steel) 177
Flotation (see under Concentration)...158
Folds (see under Geology)..... 1
Fuel Briquetting 160
Fuels, Miscellaneous 84
Fuller's Earth 99
Fumes 177, 196
Furnaces—
  Charging 48, 171
  Electric 48, 185
Furnaces (continued)—
  Fume, Gas and Flue Dust..... 196
  Iron and Steel..... 48
  Slag 196
  Walls and Lining.....178
Fuses 111

G

Gages, Water (see under Pumps).....114
Gas and Flue Dust.....177
Gas Engines 188
Gas, Natural 90
Gas Producers 190
Gases, Mine 115
Gasoline Engines 118
Gems 99
General Miscellany 204
Generators (see under Electricity).....186
Geology, Mining 1
Gold—
  Assaying 20
  Amalgamation 20
  Electricity in Mills 185
  Electricity in Mines.....182
  Gold Fields 16
  Geology 22
  Metallurgy 20
  Milling 20
  Mining 16
  Milling Costs 160
  Mining Accounts 143
  Mining Costs 123
  Miscellaneous 24
  Production 24, 144
Government Ownership 201
Graphite 100
  Production 144
Gravel 95
Grinding 151
Gypsum 100
  Production 144

H

Handling, Coal 72
Haulage 131
Headers (see under Drilling).....108
Headworks (see under Hoists).....119
Heat Treatment of Metals..... 50
Historical 202
Hoists and Hoisting.....119
Hydraulic Mining 122
Hydro-Electric 185
Hydrometallurgy 178
Hygiene (see under Sanitation).....139

I

Iron and Steel—
  Chemical Tests of Ores and Metals.. 50
  Foundry Practice 52
  Furnaces and Accessories..... 48
  Handling and Transporting Ore..... 47
  Historical and Reviews 54
  Iron Ores and Mining 46
  Mechanical and Heat Treatment..... 50
  Miscellaneous 54
  Plants, Production and Products..... 51
Insurance (see under Sociological).....142

K

Kaolin 114

L

Labor in Mines and Mills.....140
Lamps 113
Law, Mining 199
Leaching (see under Hydrometallurgy).178
Lead—
  Chemistry 39
  Electricity in Mills 185
  Electricity in Mines.....185
  Geology 40
  Metallurgy 39
  Milling Costs 160
  Mines and Mining 38
  Mining Costs 123
  Miscellaneous 41
  Ore Dressing 39
  Production 41, 144
Legislation, Mining 199
Lighting in Mines and Mills.....113
Lignite (see under Coal)..... 68
Lime 94
Lining (Furnace) 178
Locomotives 130
Lubrication (see under Power and Machinery) 182

M

Machinery 182
Magnesite 109
Magnetic Ore Dressing (see under Mill and Milling) 151
Management, Mine 140
Manganese 57
  Production 144
Mechanical Coal Cutters 73
Meerschaum 104
Mercury 65
  Production 144
Metallography 198
Metallurgy—
  Copper 31
  Electrochemistry 169
  Electrometallurgy 169
  General and Miscellaneous.....180
  Gold 20
  Hydrometallurgy 178
  Iron and Steel 48
  Lead 39
  Silver 26
  Testing of Metals 194
  Thermic 171
  Tin 61
  Zinc 42
Metals 16
Meters (see under Power and Machinery) 182
Mica 109
  Production 144
Mill and Milling—
  Accounts 143
  Amalgamation 157
  Bookkeeping 143
  Briquetting 160
  Concentration 154
  Costs 160
  Crushing 151
  Cyaniding 158
  Drying 154
  Grinding 151
  Lighting 113
  Miscellany 161
  Reduction 151
  Sampling 151
  Sizing 151
  Sorting 154
  Washing 154
Mills, Tube (see under Crushing).....151
Mine and Safety Lamps.....113
Mineralogy 13
Mines and Mining—
  Accidents 136
  Blasting 111
Mines and Mining (continued)—
  Boreholes 144
  Boring 109
  Cables 109
  Conveying and Conveyors 112
  Costs 123
  Dealing 140
  Dealers and Dealings 140
  Drilling 109
  Dust 115
  Elevating 112
  Excavators 109
  Explosives 115
  Fire Damp 114
  Handling Coal 112
  Haulage 109
  Hoists and Hoisting 109
  Hydraulicking 109
  Ladder 109
  Lamps 113
  Legislation 199
  Lighting 113
  Locks 109
  Management 140
  Mine Gas 115
  Mine Temperatures 115
  Miscellany 109
  Motor Trucks 109
  Ore Reserve 109
  Pillars 117
  Power Shovels 112
  Production 144
  Promotion 201
  Props 117
  Prospects and Prospecting 109
  Pumps and Pumping 113
  Rescue and First Aid 109
  Safety 111
  Sanitation 109
  Shafts and Shaft Sinking 109
  Signalling 113
  Sluicing 109
  Sociological 145
  Stripping 109
  Stoping 109
  Storage 109
  Stowing 117
  Supports 117
  Surveying 109
  Taxation 199
  Telephones 113
  Timber and Timbering 117
  Tramways 109
  Transportation 109
  Trucks, Motor 109
  Tunnels and Tunnelling 109
  Ventilation 110
  Waters 109
Mineral Production.....144
Mineralogy 13
Mining Costs 123
Mining Geology 1
Mining Miscellany 109
Missed Holes (see under Drilling) 109
Molybdenum 68
Monazite 104
Motor Trucks and Tractors.....132
Motors (see under Electricity) 186

N

Natural Gas 90
  Production 144
Nickel 63
  Production 144
Nitrates 104
Nitrogen 24
Non-Ferrous Alloys 63
Non-Metals .....

O

Oil Engines .....
Oils (see Petroleum) .....

Ore Dressing—
Copper 31
Electromagnetic 171
Gold 20
Iron 50
Lead 39
Magnetic 151
Silver 26
Tin 61
Zinc 42
Ore Genesis 12
Ore Reserves 108
Ores and Metals 16
Organization, Business 204
Osmium 65
Overwinding (see under Hoisting) 119

P

Palladium 66
Peat 84
Production 144
Petrography 13
Petroleum—
Geology 88
Mining 86
Miscellaneous 89
Oil Fields 86
Pipe Lines 86
Preparation 87
Production 90
Products 87, 144
Transport 86
Uses 87
Phosphate 98, 105
Phthisis 142
Pigments 101
Pillar Working 117
Pipe Lines (see under Petroleum) 86
Pitchblende (see under Radium) 65
Placer Mining and Machinery (see also under Gold) 122
Platinum 29
Production 144
Pockets and Bins (see under Storage) 135
Potash (see also Salines) 101
Production 144
Power and Machinery—
Compressed Air 189
Combustion Engines 188
Electricity 182
Gas Producers 190
Miscellaneous 190
Steam and Steam Engines 188
Power Shovels 121
Precious Stones (see Gems) 99
Precipitation (see under Cyaniding) 158
Producer Gas 190
Production, Mineral 144
Props, Mine 117
Prospects and Prospecting 106
Pulverizing (see Reduction) 151
Pumps and Pumping 114
Pyrites 102

Q

Quartz 102
Quicksilver (see Mercury) 65

R

Radio-Actives 65
Radium 65
Reduction 151
Refining (see also under Metallurgy)—
Copper 31
Gold 20
Lead 39
Petroleum 87
Refining (continued)—
Silver 26
Zinc 42
Refractories 178
Rescue Work 139
Reservoirs (see under Petroleum) 87
Rock Drilling 108
Rolls (see under Crushers) 151
Rotary Pumps (see under Pumps) 114
Rutile 105

S

Safety in Mines and Mills 137
Safety Lamps 113
Salines 103
Sampling 151
Sand 95
Sanitation 139
Schools, Mining 203
Screening, Coal 72
Shafts and Shaft Sinking 112
Shovels, Power 121
Signalling 114
Silver—
Chemistry 26
Cyaniding 26
Electricity in Mills 185
Electricity in Mines 182
Geology 27
Leaching 26
Metallurgy 26
Milling Costs 160
Mine Accounts 143
Mines and Mining 25
Mining Costs 123
Miscellaneous 28
Ore Dressing 26
Ore Genesis 12
Production 28, 144
Refining 26
Sinking and Driving 112
Sizing 154
Skips (see under Hoisting) 119
Slag 196
Slate 96
Slimes (see under Cyaniding) 158
Sludge 158
Sluicing 122
Smelting—
Copper 31
Electrometallurgy 169
Furnace Practice 48
Gold 20
Silver 26
Thermic Metallurgy 171
Soapstone 103
Societies, Mining and Metallurgical 203
Sociological 142
Sorting 154
Steam and Steam Engines 188
Steels 51
Stone 96
Stoping 118
Storage 135
Stowing 117
Stripping 125
Structurals 94
Sulphur 103
Sulphuric Acid 97
Supports 117
Surveying 107

T

Talc 103
Tailings 196
Tanks (see under Storage) 135
Tar 82
Taxation, Mining 199
Technology—
Chemistry and Assaying 165

Technology (continued)—
Metallurgy 169
Mill and Milling 151
Mines and Mining 141
Power and Machinery 182
Telephones, Mine 114
Testing 194
Thermic Metallurgy—
Flue Dust 177
Fuels and Combustion 175
Fume 177
Gas 177
General 171
Lining 178
Refractories 178
Walls 178
Thickeners (see under Cyaniding) 158
Thorium 66
Tile 93
Timbers and Timbering 117
Tin 61
Production 61, 144
Tipples 72
Titanium 58
Tractors 132
Tramways 132
Transportation—
Conveyors 132
Iron Ore 47
Motor Trucks 132
Rail 131
Tramways, Cables, etc. 132
Trestles (see under Haulage) 132
Trucks, Motor 132
Tube Mills (see under Crushing) 151
Tungsten 59
Production 59, 144
Tunnels and Tunneling 115
Turbines (see under Pumps) 114

U

Uranium 59

V

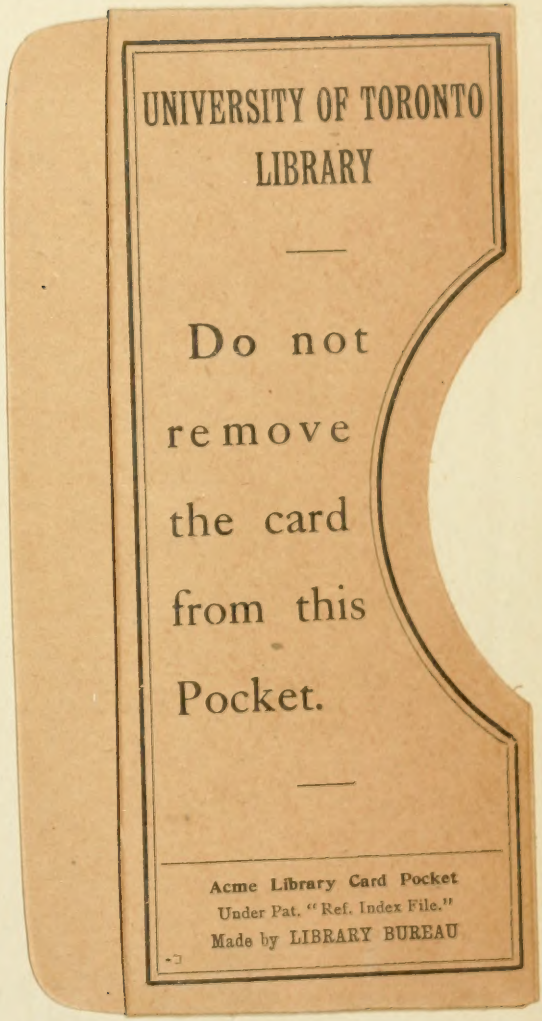
Vanadium 59
Ventilation, Mine 115

W

Wages (see under Labor) 141
Walls (Retaining and Lining) 178
Washing 154
Waste Waters, Disposition 114
Wastes, Disposition 196
Water, Mine 116
Winding (see under Hoisting) 119
Wood Preservation (see under Timbers) 117
Workmen's Compensation (see under Labor) 149

Z

Zinc—
Chemistry 42
Electricity in Mills 38
Electricity in Mines 142
Geology 44
Leaching 42
Metallurgy 42
Milling Costs 123
Mine Accounts 143
Mines and Mining 42
Mining Costs 123
Miscellaneous 44
Ore Dressing 42
Production 45, 144
Reduction 42
Smelting 44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